


County of Lanark.
Secondary Education Committee.

THIRD
ANNUAL REPORT
ON THE
MEDICAL INSPECTION AND SUPERVISION
OF
SCHOOL CHILDREN.

1911-1912.



HAMILTON :
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To the Chairman and Members of
Lanarkshire Secondary Education Committee.

Gentlemen,

We beg to submit the Third Annual Report on
the Medical Examination and Supervision of School Children
in the County of Lanark for the year ending 31st July, 1912.

We are,

Gentlemen,

Your obedient Servants,

JOHN MACINTYRE.

W. JONES MACKINNON.

School Medical Inspection Offices,
Hamilton, 2nd October, 1912.

SCHOOL MEDICAL STAFF.

NORTHERN DIVISION.

School Medical Officer.

JOHN MACINTYRE,
M.B., Ch.B., D.P.H.

Assistant School Medical Officer.

DONALD CLARK,
M.B., Ch.B.

Nurses.

MARY C. CRAM.
*JEAN THOMSON.

SOUTHERN DIVISION.

School Medical Officer.

W. JONES MACKINNON,
M.D., D.P.H.

Assistant School Medical Officer.

CUNISON D. RANKIN,
M.D., D.P.H.

Nurses.

KATHERINE BOYD.
*MATTHIA WALLACE.

Clerical Staff.

SENIOR CLERK,	-	-	-	ROBERT A. M'ROBBIE.
JUNIOR CLERK,	-	-	-	JOHN WRIGHT.

* Appointed on 3rd July, 1912.

PART I.

SCHEME OF MEDICAL INSPECTION.

THE Scheme of Medical Inspection and Supervision of School Children, as laid down in the Education (Scotland) Act, 1908, has now been in active operation in the County of Lanark since September, 1909. The scheme has been adopted by all the constituent School Boards with the exception of Crawfordjohn in the Upper Ward of the County. As was indicated in last year's report, Maryhill School Board has now amalgamated with that of Glasgow, and consequently the examination of the pupils no longer falls to be undertaken by the County of Lanark.

The area comprises 43 School Boards, having 235 schools, with 102,651 enrolled pupils. The schools are situated in 11 sanitary areas, of which 8 are Burghs and 3 are County Sanitary Districts.

In the Scheme of Medical Inspection and Supervision of the school children, the County is divided into two areas—a Northern and a Southern Division. The Northern Division is under the charge of Dr. Macintyre, assisted by Dr. Clark and a nurse; the Southern Division is under the charge of Dr. Mackinnon assisted by Dr. Rankin and a nurse*

NORTHERN DIVISION.

District.	No. of Schools.	Average No. of Scholars on Register.
Airdrie,	8	5,089
Bothwell,	22	12,466
Cadder,	9	2,313
Cambuslang,	7	4,926
Carmunnock,	1	122
Clarkston,	8	2,112
New Monkland,	9	1,700
Old Monkland,	21	12,087
Rutherglen,	7	5,394
Shettleston,	8	5,801
Lenzie Academy,	1	325
Total,	101	52,335

SOUTHERN DIVISION.

District.	No. of Schools.	Average No. of Scholars on Register.
Upper Ward,	56	10,073
Avondale,	5	811
Blantyre,	5	3,330
Calderhead,	4	1,943
Cambusnethan,	11	6,194
Dalserf,	4	1,083
Dalziel,	11	10,568
East Kilbride,	3	521
Glassford,	2	257
Hamilton,	15	9,242
Larkhall,	6	3,338
Shotts,	8	2,273
Stonehouse,	4	683
Total,	134	50,316

The above figures are taken from the latest Return issued by the Scotch Education Department.

* Two additional nurses have been appointed—one to each division—to take up duty at the beginning of next school year.

EQUIPMENT.

The equipment as regards weighing machines, measuring apparatus, boxes for holding record cards, uniform for nurses, etc., remains much the same as last year. The weighing machines, which are on the principle of the spring-balance continue to give satisfactory results, while the portability and ease with which they can be set up in position make this type of machine useful for school work. An ordinary measuring tape is now generally used for the taking of the height of the pupils and serves admirably. Vision-testing cards (Snellen's Test-types) are supplied to each school to be kept for the use of the School Medical Officers.

The various schedules, forms, notices to parents, etc., have from time to time been amended as circumstances demanded or experience pointed out, and at the end of the present session all the existing forms and notices have been thoroughly revised and certain other notices added, especially those giving instructions to parents regarding the care of the teeth and the personal cleanliness of the children.

ADMINISTRATIVE PROCEDURE.

Pupils Examined.—The various steps in the procedure of Medical Inspection were very fully explained in last year's report, and as there has been no material alteration this year repetition is unnecessary. However, another group of pupils has been added to those which were examined in former years, namely, a group embracing all children who are 11 years of age. Formerly only the "Entrants" (consisting of children of 6 years of age or under) and the "Leavers" (consisting of pupils of 13 years of age or over) were examined as Routine cases, but a mid-way group was this year examined consisting of pupils who were 11 years, but not yet 12 at the time of the examination. As formerly, of course, there was examined the large body of pupils who did not belong to any of the above age-groups, but who were presented for special examination because of some supposed defect. This group of pupils is known as the "Non-Routine," or "Selected" group. Thus the medical examination in this area embraces the following pupils in each school:—

1. Entrants ("6 years or under" group).
2. 11 years old group.
3. Leavers ("13 years or over" group).
4. "Non-Routine" or "Selected" cases.

There has been no alteration in the method of issuing the health-history cards or of the sending of notices to parents when any defect has been found which calls for remedy.

All the various processes in connection with the actual examination of the pupils—weighing, measuring, loosening of clothing, and vision-testing—are done by the School Medical Staff, so that the only work which devolves upon the teacher is to see that the child is presented with his record card bearing his name, age, full address, and the dates of any serious illness the child may have had. Teachers are not required to put any remarks whatever on the back of the child's Record Card, and in fact it would be much better if all teachers would refrain from doing so. The back of the Record Card is reserved for the Medical Officer's remarks, and it is usually found that the doctor's standard of what constitutes, say a clean, or a well-nourished child, is not in accord with the teacher's estimate.

Record Cards.—As there seems to be some misconception in the minds of certain teachers as to the purport of a child's Record Card, it may be well to state clearly once more that the Record Card which a child receives at his first medical examination should follow that child throughout the whole of his period of schooling. There are columns ruled off on each Record Card for the four routine inspections which it is proposed that each child will have during his school life, and it is therefore necessary that the child should present at each routine examination the Record Card which he originally received. That card is preserved in the lock-fast box provided for the purpose, and which is kept in school under the charge of the head teacher. A considerable amount of time and labour is wasted each year in dealing with duplication of Record Cards, and it would be a great saving of work if this point were clearly understood by all teachers.

While in the vast majority of cases the Record Cards which the children present at the examination are in a clean condition and properly filled up as regards name and address, it is a deplorable fact that in some schools these cards are presented in a dirty, torn, and carelessly arranged state. In more than one school the Record Cards were presented in such a disgraceful condition that it was found necessary in the interests of health and decency to burn practically every card and write out fresh ones at the Office. When it is considered that the child's card will probably have to last for nine or ten years, it is surely not too much to ask that the teacher should see that the card is preserved in as clean and sanitary a condition as possible.

Transference of Record Cards.—A problem which will require to be carefully considered in the immediate future is what is to be done when a child goes from one school to another. When the school to which the child removes is under the same School Board, the matter of sending on the child's Record Card

to that school is a simple one. But a greater difficulty arises when the child removes to a school in a different part of the country. At present no definite system exists for the Record Card following a child, and there is no authoritative statement as to what procedure is to be adopted. Medical inspection of school children is not a local but a national undertaking, and it should be possible for a child's Record Card to follow him during his whole period of schooling even though he came from the remotest Highland glen to the Metropolis itself. This matter has been informally discussed with several headmasters and the opinion of the majority was that the School Board Offices should serve as a "clearing house" for children's Record Cards. This however, would only duplicate the work, for in the first instance the headmaster would have to notify the Clerk to the Board that a certain child had come from such and such a district, and he (the Clerk) would then require to write to the School Board Clerk of the district from which the child came asking the card to be forwarded. This process appears complicated and clumsy, and a simpler solution of the difficulty would be as follows:—When a child leaves school to go to any other school, whether in the immediate neighbourhood or in a remote part of the country, the headmaster should put that card aside until it is written for. The headmaster of the school to which the child has removed would learn when enrolling the child which school he came from and thereafter should write direct to the former headmaster asking for the child's Record Card. Printed forms could be supplied for the purpose and the expense of postage, which after all would be trifling, borne by each School Board.

In some instances it has been found that on a child leaving a certain school to go to another the headmaster has given the child his Record Card to convey to the headmaster of the school to which he is going. This, of course, is a very bad principle, for should that Record Card contain any information which the child's parents might consider as reflecting adversely upon their care of the child, in all probability the card would never reach the destination for which it was intended. The contents of the Record Card are confidential and should never be seen by any persons other than the headmasters or the School Medical Officers. On a child completing his schooling his Record Card is returned to the Medical Inspection Offices and is there destroyed. If a card, therefore, is to be transmitted from one school to another it should be sent in a sealed envelope either through the post or by the hands of the School Board's officers.

Some few School Boards have been carrying out the transference of the Record Card between schools in their own area, but the problem is a much wider one than that, and it is one on

which definite instructions might be given by the Education Department.

Facilities for the Conduct of Medical Examination.—The lack of proper accommodation for the efficient carrying out of medical examination of school children is one of the problems which demands immediate solution. However enthusiastic or however skilled a medical officer may be, it is impossible to carry out the various processes in the examination with any degree of accuracy in a room which is wretchedly lit by natural light and is lacking altogether in artificial light. Nor can the testing of a child's hearing or the auscultation of his chest be satisfactory when in the adjacent rooms, separated, it may be, merely by thin partitions, there is on one side simultaneous singing and on the other musical drill in full swing. There are always certain noises incidental to every school, and it is probably too much to expect that medical inspection should be carried out in absolute stillness, but, at any rate, the room allotted for this purpose should be as quiet as it is possible to have it in a school. Again, there is, unfortunately, a wide diversity of opinion amongst teachers as to what constitutes a suitable place for the examination of pupils, and instances have been met where the teacher had arranged that the medical examination should be conducted in one of the cloak-rooms in which there may or may not be a window! It must be understood that in vision testing the pupil stands at a distance of 6 metres from the test card which must be hung up in a good light, so that whatever room is granted for the purposes of medical inspection it should fulfil certain conditions both as regards space and light. Headmasters are particularly asked, therefore, to place at the disposal of the School Medical Officers the room which is most suitable as regards size, lighting, and freedom from noises even though it may temporarily cause some little disturbance in their class arrangements. This granting of the best possible room applies principally to the yearly routine examination of which due notice is always given, and is not so necessary at the unannounced revisits. In one or two of the more recently built schools special provision has been made to have one of the rooms suitable for the medical examination of the pupils, and it is to be hoped that in all schools which may be built in future a special room will be set apart which will be suitable in respect of size, lighting, and situation for the proper and efficient conduct of the medical examination.

CO-ORDINATION OF SCHOOL MEDICAL SERVICE AND PUBLIC HEALTH SERVICES.

The following are the public health authorities which have jurisdiction in the schools of the various areas embraced in the scheme of School Medical Inspection in the County of Lanark :—

Burgh of Airdrie.	Burgh of Lanark.	Upper Ward of County.
" " Biggar.	" " Motherwell.	Middle " " "
" " Coatbridge.	" " Rutherglen.	Lower " " "
" " Hamilton.	" " Wishaw.	

In order to keep the various public health authorities in close touch with the prevalence of infectious or contagious disease amongst school children, arrangements have been made whereby all cases of infectious or contagious disease, whether compulsorily notifiable or not, are notified to the health authority concerned. Such conditions include diphtheria, scarlet fever, erysipelas, measles, whooping-cough, mumps, chicken-pox, scabies, ringworm, phthisis pulmonalis, etc. In addition, all cases of children who are verminous and whose homes are reported to be in a filthy or verminous condition, or whose appearance suggests the probability of filth or neglect at home, are notified to the local health authority. When notification of an infectious or contagious disease is made, such notification is sent to the Medical Officer of Health of the district, and to the Headmaster of the school.

As regards the dealing with verminous homes, valuable assistance has been given by some of the public health authorities, who, in addition to cleansing the homes, have given facilities for the disinfection of the wearing apparel, bed-clothing, etc. In particular we desire to thank Mr Arthur Dutch, Chief Sanitary Inspector for Coatbridge Burgh for the exceedingly thorough and tactful manner in which he and his staff dealt with many of the worst homes in Coatbridge district.

Thanks also are due to Dr. J. Hume Patterson, County Bacteriologist, who undertook the microscopical examination of the specimens submitted, and whose report was often of great assistance in clearing up certain doubtful cases of ringworm, diphtheria, and phthisis. The following table shows the number of specimens examined and reported on by Dr. Patterson :—

Sputum from cases of suspected phthisis,...	17
Hair from cases of suspected ringworm of scalp,	79
Throat and nasal swabs from cases of suspected diphtheria,	9

Several cases of ringworm of the scalp occurring in school children have been successfully treated by the x-rays at the Middle Ward Hospital.

PART II.

The following is a short summary of the work done for the year ending 31st July, 1912.—

EXAMINATION AND REVISITING OF SCHOOLS.

Total number of schools examined, ...	...	235
„ „ revisited once, ...	...	235
„ „ revisited twice, ...	...	144
„ „ revisited thrice, ...	...	42
„ „ revisited four times, ...	...	1
„ „ revisited five times, ...	...	1

EXAMINATION OF PUPILS.

A.—Pupils examined at Routine Inspection—

	BOYS.	GIRLS.
Infant pupils (Entrants), ...	4727	4641
11 year old group, ...	4534	4339
13 „ „ „ (Leavers),	3784	3550
Selected pupils, ...	1265	1223
Total, -	28,063.	

B.—Pupils Examined at Revisits—

Number examined at first revisit, ...	...	5528
„ „ at second „, ...	...	4470
„ „ at third, „, ...	...	1502
„ „ at fourth „, ...	...	48
„ „ at fifth „, ...	...	32
Total, -	11,580	

C.—Special Examination of Physically and Mentally Defective Children—

Number examined,	69
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D.—Examination of Junior Students—

Number examined (Entrants),	66
„ „ (1st, 2nd, and 3rd year),	16

E.—Special Examination of Neglected Children—

Number examined,	101
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ROUTINE EXAMINATION.

The total number of pupils examined at the Routine Examinations during the year ending 31st July, 1912 was 28,063. This total does not include those children who were re-examined on one or more occasions when the schools were revisited, nor does it include the Junior Students examined, or the Physically and Mentally Defective Children on whose behalf special examinations were made. All these will be dealt with later on, each under its respective heading.

Table A and Table B deal with the results of examination of the 28,063 routine cases examined. Under Table A will be found in detail, (a) the number of pupils examined in each School Board area; (b) the number of pupils with defective conditions requiring immediate attention; (c) the total number of defects observed in course of examination; (d) the total number of these defects which called for remedial measures; and (e) average number of pupils on roll.

Table B gives in detail (a) the several conditions met with in course of examination; (b) the number of pupils who suffered from these conditions; (c) the number under each condition which demanded immediate attention; and (d) the percentage of pupils who suffered from the various defects.

It will be seen from reference to the statistical tables that a very large number of defects was observed during the examination of the pupils. Many of these defects, however, were of a minor nature and did not prejudice the child's health or progress to any appreciable extent. Only those defects which affected adversely the physical or scholastic progress of the child were notified to the parents with a view to having the conditions remedied as far as possible. Thus, although 26,160 defective conditions were observed and taken note of during the examinations, only 9,208, or roughly 35 per cent., were of such a nature as to call for notice being sent to the parents. Of all the pupils examined (28,063) 7,034 were found to be suffering from one or more conditions which demanded immediate attention.

The nature of the defects observed is discussed in the following paragraphs, each under its respective heading:—

Height and Weight of Pupils.—This branch of medical inspection of school children is one which now demands serious consideration, and is one upon which some definite understanding should be come to by School Medical Officers. At present the manner in which the height and weight of the pupils are being taken varies considerably in different parts of the country and depends largely upon the personal view the

Table A.—PUPILS EXAMINED AT THE ROUTINE EXAMINATION FOR YEAR ENDING 31ST JULY, 1912.

SCHOOL BOARDS.	SCHOLARS EXAMINED IN EACH GROUP.									SCHOLARS NOTIFIED OF CONDITIONS REQUIRING ATTENTION.									CONDITIONS.		AVERAGE NUMBER OF SCHOLARS ON REGISTER.
	INFANTS. (6 years & under).		AGE GROUP. (11-12 years).		SENIORS. (13 years & over).		SELECTED.		TOTAL.	INFANTS. (6 years & under).		AGE GROUP. (11-12 years).		SENIORS. (13 years & over).		SELECTED.		TOTAL.			
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.		Recorded.	Notified	
Airdrie,	279	252	217	209	106	123	89	76	1351	76	54	57	65	27	44	53	38	414	1540	574	5089
Avondale,	43	49	41	44	37	39	7	9	269	5	4	9	5	4	5	5	5	42	176	53	811
Biggar,	24	23	14	11	24	19	14	14	143	6	3	1	—	4	2	6	8	30	108	30	346
Blantyre,	147	123	177	161	96	81	22	21	828	26	25	19	35	14	12	19	9	159	585	196	3330
Bothwell,	674	689	509	484	511	473	123	142	3605	132	129	132	152	122	140	63	80	950	3788	1251	12466
Cadder,	163	150	116	81	56	59	21	16	662	33	23	30	24	12	16	10	11	159	559	213	2313
Calderhead,	57	68	107	80	65	38	18	13	446	7	10	15	13	9	8	11	10	83	315	104	1943
Cambuslang,	181	174	190	183	208	177	54	62	1229	28	51	57	65	52	66	30	43	392	1235	505	4926
Cambusnethan,	265	209	269	304	192	235	61	80	1615	31	23	32	49	27	47	22	36	267	1068	308	6914
Carluke,	72	71	84	77	59	70	25	27	485	3	10	15	16	8	15	13	16	96	347	119	2021
Carmichael,	1	2	—	—	3	—	—	—	6	—	—	—	—	—	—	—	—	—	1	—	44
Carmunnock,	9	8	8	7	1	2	2	4	41	—	1	1	—	—	—	1	3	6	31	6	122
Carnwath,	97	84	66	59	46	39	3	10	404	8	17	8	8	4	9	3	9	66	251	73	1279
Carstairs,	33	28	17	24	23	19	—	1	145	4	3	3	6	1	2	—	1	20	116	20	353
Clarkston,	106	127	91	82	76	84	8	14	588	14	31	16	30	13	17	6	8	135	691	211	2112
Covington and Thankerton,	9	7	8	3	5	2	—	—	34	1	1	—	1	—	—	—	—	3	30	4	42
Crawford,	11	10	7	8	3	9	—	—	48	1	1	1	1	—	2	—	—	6	32	6	112
Culter,	2	3	1	2	1	—	—	—	9	—	—	—	—	—	—	—	—	—	9	—	46
Dalserf,	69	59	44	40	28	26	5	6	277	11	11	8	9	5	8	3	4	59	207	72	1083
Dalziel,	340	351	473	455	452	385	131	150	2737	67	73	122	137	106	96	77	96	774	2504	1000	10568
Dolphinton,	2	5	8	1	—	1	1	3	21	—	—	—	—	—	1	1	—	2	16	4	78
Douglas,	21	20	15	17	16	19	3	3	114	2	2	1	2	2	3	2	2	16	70	16	441
Douglas Water,	32	23	23	11	11	16	—	1	117	3	5	3	1	1	1	—	1	15	86	19	324
Dunsyre,	5	1	3	2	1	1	—	1	14	—	—	—	1	—	—	—	—	1	6	1	27
East Kilbride,	43	36	21	14	24	22	—	—	160	3	5	4	3	9	6	—	—	30	108	34	521
Glasford,	13	26	19	14	9	7	6	6	100	—	4	8	2	1	2	3	3	23	76	36	257
Hamilton,	494	482	454	446	427	442	125	94	2964	84	81	96	108	81	113	81	59	703	2508	845	9242
Lanark,	56	63	84	95	88	79	23	21	509	11	11	11	21	14	22	10	12	112	389	123	2060
Larkhall,	83	79	139	144	129	117	18	13	722	7	9	14	19	18	22	4	2	95	428	119	3338
Leadhills,	2	5	13	6	1	7	—	—	34	—	—	4	1	—	2	—	—	7	37	8	147
Lesmahagow,	148	182	92	92	69	42	50	37	712	15	24	20	14	6	8	22	23	132	496	152	2427
Libberton,	7	2	2	4	2	—	—	—	17	3	—	—	—	1	—	—	—	4	24	4	40
New Monkland,	123	150	75	94	39	27	39	35	582	28	29	20	25	13	11	19	16	161	729	210	1700
Old Monkland,	452	396	489	467	431	355	167	149	2906	110	97	146	148	121	101	104	99	926	3488	1343	12087
Pettinain,	7	6	2	3	1	—	—	—	19	1	1	—	1	—	—	—	—	3	15	3	45
Rutherglen,	180	203	268	244	226	213	99	94	1527	31	41	69	76	53	64	50	48	432	1525	548	5394
Shettleston,	251	263	234	239	165	128	120	99	1499	53	65	74	78	38	46	69	72	495	1728	741	5801
Shotts,	161	142	113	101	64	72	25	17	695	24	26	20	22	14	14	16	9	145	528	175	2273
Stonehouse,	42	49	30	22	20	26	4	4	197	5	8	7	5	3	2	3	—	33	167	42	683
Symington,	2	6	1	—	—	—	—	—	9	—	—	—	—	—	—	—	—	—	10	—	60
Walston,	4	2	1	3	1	1	—	—	12	1	—	—	—	—	—	—	—	1	5	1	66
Wandell and Lamington,	3	3	—	—	—	—	—	—	6	1	—	—	—	—	—	—	—	1	5	1	56
Wiston and Robertson,	3	2	2	2	4	—	—	—	13	3	—	1	—	—	—	—	—	4	14	4	59
Lenzie Academy,	11	8	7	4	64	95	2	1	192	1	1	—	—	9	20	1	—	32	109	34	325
Total,	4727	4641	4534	4339	3784	3550	1265	1223	28,063	839	879	1024	1143	792	927	707	723	7034	26,160	9208	102,651

Table B.—RESULTS OF EXAMINATION IN EACH OF THE FOUR GROUPS OF SCHOLARS.

	NUMBER OF SCHOLARS EXAMINED AND THE NUMBER OF CONDITIONS RECORDED.												SCHOLARS PRESENTING CONDITIONS OF WHICH THE PARENTS WERE NOTIFIED, AND THE NATURE OF THE CONDITIONS REQUIRING ATTENTION.											
	ENTRANTS (6 years old and under).		AGE GROUP (11-12 years).		LEAVERS (13 years and over).		SELECTED GROUP.		FOUR GROUPS.		TOTAL.	PER CENTAGE.	ENTRANTS (6 years old and under).		AGE GROUP (11-12 years).		LEAVERS (13 years and over).		SELECTED GROUP.		FOUR GROUPS.		TOTAL.	PER CENTAGE.
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.			Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.			Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.		
SCHOLARS EXAMINED, ...	4727	4641	4534	4339	3784	3550	1265	1223	14,310	13,753	28,063		839	879	1024	1143	792	927	707	723	3362	3672	7034	25.1
Clothing and Footgear, ...	170	79	150	64	98	19	97	38	515	200	715	2.5	95	38	77	33	41	9	82	34	295	114	409	1.4
Nutrition, ...	119	163	39	40	26	18	30	16	214	237	451	1.6	18	23	6	4	1	2	16	10	41	39	80	.3
Head, { Nits, ...	79	785	32	699	25	376	28	145	164	2005	2169	7.7	64	347	24	310	17	167	27	131	132	955	1087	3.9
Body, { Nits, ...	89	67	47	52	30	23	29	25	195	167	362	1.3	109	174	78	104	50	47	57	85	294	410	704	2.5
Body, { Lice, ...	174	116	132	89	71	41	95	80	472	326	798	2.8	84	63	45	48	28	22	29	25	186	158	344	1.2
Dirty Body, ...	53	22	45	14	24	9	30	17	152	62	214	.8	174	116	132	89	71	41	95	80	472	326	798	2.8
Contagious Skin Diseases, { Impetigo, ...	59	51	14	11	7	5	21	12	101	79	180	.6	32	20	26	12	15	6	28	17	101	55	156	.5
Contagious Skin Diseases, { Ringworm, ...	12	7	6	5	2	1	7	5	27	18	45	.2	32	22	4	6	2	1	16	7	54	36	90	.3
Contagious Skin Diseases, { Scabies, ...	5	4	5	2	3	3	7	15	20	24	44	.1	12	7	6	5	2	1	7	5	27	18	45	.2
Teeth Decayed, { Temporary, ...	1098	1055	—	—	—	—	4	1	1102	1056	2158	.1	5	4	5	2	3	3	7	15	20	24	44	.1
Teeth Decayed, { Permanent, ...	—	—	1107	1092	991	1045	9	11	2107	2148	4255	22.8	106	80	—	—	—	—	3	—	109	80	189	.1
Nose and Throat { Tonsils, ...	412	409	375	417	339	326	29	30	1155	1182	2337	8.3	—	—	93	92	81	127	2	6	176	225	401	2.1
Nose and Throat { Adenoids, ...	117	147	75	57	58	40	50	38	300	282	582	2.1	64	69	82	85	69	66	16	19	231	239	470	1.7
Nose and Throat { Glands, ...	850	878	481	547	335	324	13	22	1679	1771	3450	12.3	34	35	27	21	22	5	42	24	125	85	210	.7
External Eye Disease, ...	218	221	102	124	74	86	95	110	489	541	1030	3.7	12	15	9	11	4	5	5	12	30	43	73	.3
Vision Distance Test, ...	8	2	481	544	391	479	269	338	1149	1363	2512	*13.4	73	92	28	31	19	20	61	67	181	210	391	1.4
Squint, ...	116	97	80	74	54	48	62	52	312	271	583	2.1	8	2	481	544	391	479	269	338	1149	1363	2512	*13.3
Ear Disease, ...	71	44	48	40	44	46	33	27	196	157	353	1.2	44	31	3	8	1	—	21	19	69	58	127	.4
Wax, ...	115	109	158	115	116	99	5	3	394	326	720	2.6	69	41	45	39	41	42	34	25	189	147	336	1.1
Hearing, ...	14	13	76	71	81	74	45	45	216	203	419	1.5	26	25	34	24	24	23	1	2	85	74	159	.6
Speech, ...	33	22	49	29	38	11	32	17	152	79	231	.8	2	3	28	9	33	32	26	27	89	71	160	.6
Mental Condition, { Dull, ...	24	12	16	9	15	5	30	21	85	47	132	.5	—	—	—	1	—	—	—	1	—	2	2	.01
Mental Condition, { Deficient, ...	3	2	2	—	5	3	19	2	20	7	27	.1	—	—	—	—	—	—	—	—	—	—	—	—
Heart and Circulation, ...	9	7	23	27	54	44	4	12	92	90	182	.6	—	—	—	—	—	—	—	—	—	—	—	—
Lungs, ...	113	89	36	28	31	14	16	4	196	135	331	1.2	2	1	6	1	15	9	1	2	24	13	37	.1
Nervous Disease, { Epilepsy, ...	1	—	—	—	—	—	—	1	1	1	2	.01	28	24	11	7	2	2	7	1	48	34	82	.3
Nervous Disease, { Chorea, ...	—	2	—	1	—	1	2	1	2	5	7	.02	—	—	—	—	—	—	—	1	—	1	1	.003
Nervous Disease, { Paralysis, ...	7	6	6	1	2	3	1	3	16	13	29	.1	—	2	—	1	—	—	1	1	1	4	5	.01
Tuberculosis, { Pulmonary, ...	—	—	—	—	2	1	1	2	3	3	6	.02	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis, { Osseous, ...	6	9	2	4	1	2	2	3	11	18	29	.1	—	—	—	—	2	1	1	2	3	3	6	.02
Tuberculosis, { Glandular, ...	3	6	3	3	1	5	5	2	12	16	28	.1	1	1	—	—	—	—	1	2	2	3	5	.01
Rickets, ...	85	60	20	10	8	2	11	9	124	81	205	.7	2	5	1	2	—	1	4	1	7	9	16	.05
Deformities, ...	14	15	19	15	19	11	—	1	52	42	94	.3	—	1	—	—	—	—	—	—	—	1	1	.003
Infectious Disease, ...	4	3	—	1	—	—	1	1	5	5	10	.03	1	1	—	1	—	—	—	1	1	3	4	.01
Other Diseases or Defects, ...	128	136	91	118	81	123	46	43	346	420	766	2.7	4	3	—	1	—	—	1	1	5	5	210	.03
													47	50	27	28	21	19	33	29	128	126	54	9

* Infant Group not included.

examining officer takes of the importance of the branch, or upon the exigencies of the district over which he has supervision. A School Medical Officer may consider that the height and weight have little bearing upon the health of the child; that, in the absence of gross variations from the normal, a child's future is not at all prejudiced by the fact that he is rather lighter or smaller than a certain standard—a standard, which, after all, is largely an arbitrary one. Should the School Medical Officer consider that his primary duties are to discover existing defects or conditions which will prejudice the child's future and to have those defects remedied as soon as possible then he will rightly consider it a gross waste of time to devote much attention to a branch which, in his opinion, has little bearing on the child's health. On the other hand there is the School Medical Officer who takes the view that the child's height and weight are an important indication of the health and physique of the child, and who records the weight and measurement with mathematical accuracy. Thus, the methods of ascertaining and recording the height and weight of children are by no means uniform, and the results are at variance in different areas. Again, there is no uniformity regarding the age periods at which children are weighed or measured. For example, in an area it may be found that the children, say of five years of age, are of such a height and weight, but this embraces children who are perhaps nearly six years old. Now, early childhood is a period of fairly rapid increase both in height and weight, and it is absurd to compare a child who is newly five years old with one who is just about to reach six years of age. To obviate this difficulty some School Medical Officers classify the children according to years and twelfths of a year, recording them as being $5\frac{1}{12}$ th, $5\frac{2}{12}$ th, $5\frac{3}{12}$ th years old, and so on, and the height and weight are calculated at those ages. This, though involving much clerical work, is more accurate for statistical purposes.

Then there is the vexed question as to what should be done with the children's boots. In some districts the boots are removed before height and weight are taken, while in other districts the children are not required to remove their boots and an allowance is made in the calculation. But the garments also present a difficulty, for in some of the poor districts, if you remove the outer coat (and it may be quite a heavy one), you remove practically all the clothing. Again, who can estimate the weight of the contents of a boy's pockets? There is no doubt that if the height and weight of children are to be taken with that degree of accuracy necessary for statistical purposes, there will require either to be a considerable addition to the school medical staff and to the clerical department, or alterna-

tively, the number of pupils examined be drastically cut down. In this County the weight of the children is recorded in pounds and half pounds, and the height recorded in inches and fractions thereof. At the commencement of the scheme the boots of the children were removed before weighing and measuring, but the demand this made on the time of the medical staff was enormous and the practice was stopped. An allowance is now made for the extra weight and height contributed by the footgear. But after all, one can hardly get over the feeling that all this weighing and measuring is so much wasted time, and has little bearing upon the medical inspection of children. One does not wish to be considered as looking at the scheme merely from a pathological standpoint, but while there exist so many outstanding defects amongst the children, so many cases on which neglect, disease, and degeneracy have laid their grip, it appears clearly the duty at present to expend as much of the School Doctor's time as possible in seeking out the immediate causes of these conditions and in endeavouring to have them removed. If those conditions which militate against the proper physiological and mental development of the child were removed, it is our opinion that the future physique of the child could be regarded with equanimity. In the Memorandum on the Medical Examination and Supervision of School Children issued by the Scotch Education Department this point is emphasised thus: "this part of the work (i.e., the comparisons of the individual and collective measurements of the children in each school or district) however, must be kept in a secondary position while so much remains to be done in the elementary essentials of school and personal hygiene." Therefore, in this County the energies of the School Medical Staff have, so far, been almost exclusively directed towards dealing with those children who were labouring under more or less gross physical disabilities, and endeavouring to have those children elevated to the same healthy standard as their more fortunate companions. Hence we have devoted no time to the compilation of elaborate statistical tables dealing with the height and weight of the pupils, nor have we endeavoured at present to find out how the children in this County compare with children in other parts of the country. This will probably come in due course. It would certainly be interesting and instructive to know if the systematic medical examination and supervision of the school children are having a beneficial effect on the standard of physique as estimated by the height, weight, and chest measurement. To ascertain this the statistics must be as accurate as possible, and, that they should be comparable all over the country, the results should be recorded in the same manner in every area. To us it appears that this can best be attained by a Census being taken, at definite

stated intervals, of the height, weight, and chest measurement of the children in our schools. These intervals could be decided upon by general agreement, or could be laid down specifically by the Education Department, but, probably, every five years would be sufficiently often for the Census to be taken. Suppose, then, that a five-yearly Census is decided upon, the question arises: "What age-groups of children should be selected for the purpose?" To us there appears only one answer, namely, that every child attending school—primary, intermediate, or secondary—should come within the scope of the Census. The age of the pupils would be recorded in years and twelfths of a year; the height and chest measurements recorded in inches or centimetres, and the weight in pounds or kilogrammes, and fractions thereof. There should be strict uniformity in the method of carrying out the estimations, and a definite standard of clothing decided upon. Consideration would also be given to the social class from which the children were drawn, to their residence, whether town or country, and certain other particulars which bear directly upon the physique of the pupils. The taking of such a Census would certainly involve a great amount of time and labour, but if it were done only every five years extra assistance might be temporarily obtained.

In connection with this subject of the physique of school children, we would venture to suggest that there should be a much closer relationship between the medical examination and the physical instruction of the pupils. It is not sufficient that the children should be made healthy, but it is desirable that they should remain so. A child may be certified as quite healthy, but one must see to it that his physiological development will thereafter proceed along the best possible lines. This can in a large measure be assured by suitable physical instruction and it is satisfactory to note that considerable attention has been given to this matter within recent years. No child should have physical exercises which his constitution is unable to stand without severe strain; but on the other hand there are many who could with benefit have more physical instruction than is at present given.

Clothing and Footgear.—Judged as a whole the clothing of the children attending the schools is satisfactory. There can be no doubt whatever that in the large majority of cases the children are sufficiently and suitably clad, and that there has been considerable improvement in this respect within recent years. But although this is so, there is equally no doubt that in many of the poorer districts the clothing and footgear are lamentably inadequate. This inadequacy is not so apparent in the summer months, but it is painfully evident during the winter. There are still hundreds of children who attend school in all

seasons of the year with bare feet and with clothing which, only by courtesy, can be said to cover their bodies. This is far from satisfactory considered either from a health or a scholastic standpoint. It is rather too much to expect that a child whose whole energies are concentrated upon the natural desire to keep warm can be in a proper state to receive scholastic instruction. This condition is, without doubt, due largely to lack of parental care. In few cases, indeed, where gross inadequacy of clothing existed was the cause rank poverty; but on the contrary the well-nigh unanimous opinion of teachers was that a good wage was being earned by the parents, but dissipation and thriftlessness were the root of the evil.

Again, many cases were met with where the children were sufficiently clad as regards the number of garments, but these were in a dirty and foul-smelling condition. The outer garments had never been brushed, far less washed, and the heterogeneous mixture of dirt, food, etc., on the clothing was far from pleasant. The boys were the worst offenders in this respect, and over and over again notices had to be sent to parents to wash the child's clothing because of the offensive smell that emanated therefrom.

Insufficient or filthy clothing was recorded in 249 out of 9,368 infant pupils examined, or 2.9 per cent.; in 214 out of 8,873 examined in the 11 year group, or 2.4 per cent.; and in 117 out of 7,334 senior pupils examined, or 1.5 per cent. That is, of the total routine cases a percentage of 2.2. In addition to these 135 children were specially presented on account of being insufficiently clad or shod. In all 409 notices were sent to parents calling upon them to have the conditions remedied at once.

Nutrition.—The bodily nutrition of the pupils examined shows an improvement upon last year, and this notwithstanding the prolonged coal-mining strike which affected all the industries in the country. That there was no special deterioration in the physique this year is probably due to the fact that in those districts which were most adversely affected by the strike voluntary agencies and school authorities provided suitable meals to the school children during the whole period. But what was surprising was that in certain districts where the great bulk of the pupils belonged to the mining class and where no provision was made as regards the providing of meals to the pupils in school there was no special evidence of lack of nourishment. Where malnutrition did exist in those districts it applied almost entirely to those children who were "chronically" underfed.

As might be expected it is in the congested industrial areas

that malnutrition in its most aggravated form exists. This is due not so much to want of food as to the evils of improper feeding. But in dealing with the bodily nourishment of the children there are many factors at work—heredity, home conditions, cleanliness, diet, hours devoted to sleep, and so on—and it is erroneous to think that all cases of malnutrition are due to the one cause, namely, scarcity of food. It is a common experience to find in cases of malnutrition or impaired physique that the child in question is permitted to roam the streets to a late hour, that he sleeps in a badly ventilated and over-crowded room, that he receives no bath for weeks or months, and that his teeth are in an unhealthy condition. In fact, it is questionable if even a few of the cases of malnutrition which are met with in school are due entirely to lack of food, and not directly to ignorance or neglect regarding the elementary principles of diet, rest, and hygiene.

The providing of a hot meal at mid-day to the pupils still continues in some of the country schools and in some of the poorer districts. This is an excellent procedure and might well be adopted in many other schools where no attempt is made whatever to provide even a cup of tea to children many of whom have to come long distances. The trouble is not great and the expense is very little. In fact in many schools there is even a slight profit to be derived from the meals. But the knowledge that good will accrue from the work and the hearty appreciation of the children should in themselves be sufficient recompense for the money and time expended.

The number of pupils recorded as suffering from malnutrition was 405 or 1.5 per cent of the routine children examined. In addition 46 children were specially presented for examination because of this condition. In 80 cases the malnutrition was of such a degree as to call for urgent notices being sent to the parents.

Lice and Nits.—A slight alteration has been made this year in the recording of these conditions, and instead of being classified under two they are now recorded under four headings, namely, (a) Lice on head; (b) Lice on Body and Clothing; (c) Nits on the Head; and (d) Nits on the Body and Clothing.

(a) **LICE ON HEAD.**—Although this condition shows some improvement on previous years there are still far too many cases where there was actual presence of lice on the head. In many cases the lice were few in number, but unfortunately this cannot be said for the great majority of the children affected. On examining the various groups of children who suffer from this condition, it will be seen that the infant children were again

the principal ones involved. This of course was what was expected, as these children, because of their tender years, are unable to look after themselves in the details of cleanliness. The blame cannot be placed on those young children, and the fault lies entirely with the parents and the older members of the household. In the other groups examined it will be noticed that there is a progressive improvement as the children get older and are better able to keep themselves in a clean condition. Although there can never be any excuse for the presence of lice on a child's head, yet it is recognised that a girl's hair is more difficult to keep clean than that of a boy. A boy's head is easily kept free from vermin, and there can be nothing but the severest condemnation of those who permit their boy's head to become and remain pediculous. Yet it was found that no fewer than 294 boys were affected in this way. Vermin must be stamped out of the schools at all costs, and although the struggle will be a strenuous and a prolonged one it must finally be successful. Sympathy can be felt where poverty or disease falls to be dealt with, but with vermin and filth there can only be a merciless war waged.

The following are the figures showing the pupils in the various groups who were attending school with lice on their heads :—

BOYS.				GIRLS.			
Infant group,	109	or	2.3 per cent.	174	or	3.5 per cent.	
11 year	„ 78	„ 1.7	„	104	„ 2.3	„	
Senior	„ 50	„ 1.3	„	47	„ 1.3	„	
Selected	„ 57			85			
Total, - 294				410			

In every case where lice are present a notice is sent to the parents calling for the immediate cleansing of the child.

(b) LICE ON BODY AND CLOTHING.—Although the presence of lice on the head is a repugnant matter the condition becomes much more loathsome when the body and clothing are involved. There is something peculiarly repulsive in the body louse, and to the healthy mind it conveys a specially abhorrent impression. Associated as it is with filth and neglect, it is no wonder that anxious parents live in constant dread of their children becoming contaminated from their less cleanly playmates. It cannot be permitted that clean, well-cared-for children should be constantly running the risk of verminous contamination; and those parents who send their children to school in a filthy state must be rigorously dealt with. Several such cases were dealt with this year, but these will be discussed in a subsequent section of this Report.

Ignorance of how cleansing may be effected cannot be adduced by parents as an excuse, as in every case printed instructions are sent to them giving in detail what should be done to get rid of the vermin. It is not only in the more densely-populated, industrial areas that the evil exists, for even in the little country schools, where one would least expect it, verminous conditions are oft-times found.

The large number of children affected is seen from the following table :—

	BOYS.		GIRLS.	
Infant group,	174	or 3.6 per cent.	116	or 2.4 per cent.
11 year „	71	„ 2.9 „	89	„ 2.0 „
Senior „	71	„ 1.8 „	41	„ 1.1 „
Selected „	95		80	
	<hr/> 472		<hr/> 326	

Notices were sent to parents in every case amounting in all to 798.

(c) NITS ON HAIR.—The number of pupils affected with this condition, although appreciably less than last year, is still distressing. The general public do not yet fully recognise the full significance of nits in the hair, for these are found present in the hair of children, especially girls, who in all other respects are in a clean and well-cared-for condition. If the fact that nits invariably point to the presence of lice were fully borne in upon the minds of all parents and children it is certain that a much more strenuous endeavour would be made to get rid of them. These nits, which are merely the eggs laid by the louse, are firmly cemented on to the hair, and the removing of them involves great patience and constant attention. Undoubtedly the most efficacious method is to cut off the hairs affected and burn them, and where the nits are present in large numbers it is always recommended to cut the hair short. Although thorough, daily combing of the hair with a fine comb and frequent washing of the head will remove in time all the actual lice, the empty shells from which the lice emerged on hatching remain for a long time and are a source of disfigurement. Hence the recommendation to parents to cut the affected hairs out altogether.

Girls are by far the more commonly affected, and the greater difficulty of keeping their hair free from contamination is fully recognised. But there can be no excuse for boys having their heads dirty, and the presence of nits in their hair is invariably associated with other evidences of neglect or filth. The fact that so many of the senior girls, that is those of thirteen years and upwards, suffer from nits in their hair is deplorable,

and affords a rather unpromising outlook as regards their future care and management of households and children.

While dealing with this subject of cleanliness of head and body it is interesting to note how the children of foreigners compare with those of our own country. In many of the coal-mining districts there is a considerable Polish population, whilst, of course there is also the ubiquitous Italian. It may come as a surprise to many people to learn that there is no cleaner, healthier, and well-cared-for child attending any school in the County than the Polish child. On no occasion has there ever been any necessity whatsoever to find the slightest fault as regards cleanliness or care, and it is frequently a striking picture to see sitting side by side the Polish child—clean, well-nourished, and warmly clad—and the child of one of our own countrymen—dirty, ragged, and ill-nourished. As a class the Italian children are well fed and fairly clean, but their clothing is often redolent of garlic and rancid oil.

The following table shows the number of children affected in the various groups examined :—

	BOYS.				GIRLS.			
Infant group,	79	or	1.6	per cent.	785	or	16.9	per cent.
11 year ,,	32	,,	.7	,,	699	,,	16.1	,,
Senior ,,	25	,,	.6	,,	376	,,	10.5	,,
Selected ,,	28				145			
	<hr/> 164				<hr/> 2005			

(a) NITS ON BODY AND CLOTHING.—When nits are found on the body and clothing of children they are invariably associated with the presence of lice and nits on the hair. The clothing, or part of it, may have been hurriedly cleansed in anticipation of the School Medical Officer's visit, but the fact that nits are found in the seams of the garments gives a clear indication of the neglect which is the normal state of affairs. Lice may have been removed for the time being, but it is certain that in a day or two these will be again in evidence when their period of hatching is accomplished. It was found that when nits were present on the clothing or body, they were also present on the head as the degree of neglect in such cases was usually extreme. The boys were more commonly affected than girls, and, indeed, in all matters relating to uncleanness, with the exception of the head, they are the principal offenders.

The following table shows the different groups of children affected :—

	BOYS.	GIRLS.
Infant group,	89 or 1.8 per cent.	67 or 1.4 per cent.
11 year „	47 „ 1.0 „	52 „ 1.1 „
Senior „	30 „ 1.0 „	23 „ 0.6 „
Selected „	29	25
Total,	195	167

In all cases where nits are present on the clothing or body notices are sent to the parents giving them full instructions regarding the cleansing of the garments, and the prevention of re-infection.

Contagious Skin Diseases.—(a) IMPETIGO.—It is satisfactory to note that the number of pupils affected with this condition is considerably smaller than in former years. The disease is one which is very amenable to treatment if caught in its early stages, but when it gets a firm hold and is widely distributed over the body the period of cure is considerably increased. Scrupulous cleanliness of the body, head, and finger-nails is the best safeguard against this disease, and, in particular, if the finger nails of children were kept short and clean there would be very little impetigo found in our schools. The worst cases of impetigo were those which arose from verminous irritation of the scalp and body, and in most of these cases the children were excluded from school till the disease was cured—the cure essentially consisting of cleansing the child's head and body. Impetigo may be secondary also to scabies, and in fact any disease of the skin which gives rise to itching and scratching may be followed by impetigo. Amongst the routine scholars examined 80 boys and 67 girls were found to be affected more or less by the disease, whilst in the selected group 21 boys and 12 girls suffered from the condition. Notices were sent to parents in 90 cases urging the need of medical treatment. In 19 cases the disease was of such an extent and degree as to call for the temporary exclusion of the children from school.

(b) RINGWORM.—This disease, which is due to a vegetable fungus, is one which is well known to most people. There are several varieties of the disease, but for practical purposes the condition in school is recorded under two headings—ringworm of the body, and ringworm of the scalp. It must be remembered that the ordinary ringworm of the body—that variety of the disease which tends to spread in a circular or crescentic manner—is well known to most householders, especially in the country districts, but the other and much more persistent form which affects the hairy scalp is not easily recognised by the layman. Hence, we find that when ringworm of the body breaks out most parents have treatment instituted quickly,

but when ringworm of the scalp is present, it may have been going on for months without being recognised. The treatment of ringworm of the body is usually simple, and with ordinary care and attention the disease should be easily stamped out. As the disease is spread by contact, parents should see that none of the wearing apparel of the child affected is worn by any other of the children, and that the cap, clothing, etc., should be thoroughly boiled to destroy the infective spores of the fungus. The period of exclusion from school of a child affected with ringworm of the body averages about eight or ten days, by which time he should be quite cured and free from infection.

In ringworm affecting the hairy scalp, however, the condition is much more persistent. The insidious onset of the disease, the absence of pain or discomfort, and the fact that there is for a long time little or no disfigurement all tend to make this condition easily overlooked. It is only when bald patches appear on the head that the parent gets anxious and consults her medical adviser to find that, in all probability, the disease has obtained a firm hold on several patches on the scalp. The danger of such a disease is permanent baldness of the areas affected and if this is to be avoided the cure must be thorough and efficient. No child can be said to be free of the disease if the growing hairs still show the spores of the fungus adhering to them, and when a pupil is reported to be free from the disease and fit to be re-admitted to school a very careful examination is made by the School Medical Officer, and, if necessary, samples of hair taken for microscopic examination. This examination has shown in several cases the existence of spores when, to all external appearances, the child was free from the disease. In such cases there is no alternative but to exclude the child from school for further treatment. The most rapid and efficient cure is obtained by means of the application of x-rays which can be obtained at any of the larger infirmaries, and also at the Middle Ward Hospital where there is an installation for the treatment of ringworm of the scalp. When the condition is treated by means of x-rays the period of exclusion from school extends from four to six weeks, but when the treatment is by means of lotions, ointments, etc., this period may be greatly exceeded, often running into months or even years.

In addition to the foregoing types of ringworm, there were found two cases of favus amongst the pupils. This condition also affects the scalp, but is of a very severe and persistent nature. This disease has all the characteristics of ringworm of the scalp, but in addition there are present circular crusts on the head. The disease is very unsightly, and

the odour arising from the affected scalp is nauseating. Both cases were excluded from school for an indefinite period to permit of treatment being carried out.

The number of children found to be affected with one or other of the foregoing types of ringworm during the routine examination was :—

Ringworm of Body, ...	5 boys,	5 girls,—Total,	10.
„ Scalp, ...	21 „	12 „ — „	33.
Favus, ...	1 „	1 „ — „	2.

In addition to these, 19 cases were discovered at subsequent revisits to the schools. In all cases the children affected were excluded from school for varying periods.

(c) SCABIES.—This disease is due to a parasite called the "*Acarus Scabiei*" which burrows below the upper layers of the skin and there deposits its eggs. The intense itching which arises when these eggs hatch gives the disease its popular name—"the itch." The scratching of the affected part frees the parasite which clings to the finger nails and is spread by further scratching to other parts of the body. The sites on the body which are usually affected are between the fingers, the wrists, forearms, chest, and the inner aspect of the thighs. The face is rarely affected, and the skin between the shoulders is also usually free from infection. The vigorous scratching of the affected parts often results in septic sores forming, and there is then an added complication to the process of cure. As can be easily imagined the disease is liable to affect all the members of a household, and the stamping out of the condition often entails considerable patience and prolonged and thorough treatment. Cases have been met with where the disease had lasted in a family for many months. Not only is actual treatment of the disease necessary, but all articles of wearing apparel, blankets, and all bed-clothing must be disinfected by boiling or otherwise. No child can be considered cured if itching at night time still continues, and a safe guide is to pronounce a child cured only after all itching has disappeared. All cases of scabies are rigidly excluded from school as soon as they are known to suffer from the condition. A mild case of the disease is usually excluded for a fortnight, but if the condition is extensive or of long standing, this period of exclusion must be considerably increased.

Amongst the infant children there were 9 cases of scabies, and amongst the older pupils 13 cases. In the selected group 22 cases were met with. This makes a total of 44 cases discovered during routine examination. In addition to this number 6 cases were discovered on revisiting the schools.

Teeth.—The state of the teeth of the school children still remains very far from satisfactory. In fact, instead of there being any improvement this year, matters are rather worse. No fewer than 6,388 pupils examined as routine cases were found to suffer from defective teeth, i.e. a percentage of 24.9, an increase of nearly 3 per cent. on last year. Add to this number 25 selected cases where the teeth were also very unsatisfactory, and the enormous total of 6,413 is reached. This number is not made up from any one section of the community, but contains children from all classes and of all ages. There is a deplorable lack of interest still shown as regards the care and preservation of the teeth of a child, and parents who are anxious enough as regards the child's bodily welfare in other directions seem to regard the teeth as being beyond the pale of their jurisdiction and best left to the care of Providence. The condition of the teeth and gums of many of the infant children was pitiful. Gums were inflamed, teeth suppurating at their roots, and projecting teeth causing ulceration of the cheek, yet no steps were being taken to cure or relieve the conditions. Over and over again little children were found whose mouths were in a thoroughly septic state, and whose breath was foul to a degree. How can children be rosy-cheeked, healthy, and strong when there is a constant absorption of pus into their systems, and the ability to masticate their food is almost nil because of rotten teeth and painful gums? Each year emphasises our opinion that malnutrition and anaemia in children are in the vast majority of cases primarily due to the unhealthy state of the teeth. It is a firmly rooted superstition that a child's first teeth *must* become rotten and painful before being replaced by the second or permanent teeth. This, of course, is nonsense, and although most of the first teeth become discoloured before being shed, there is no necessity whatever for those teeth to become rotten, and the shedding of the first teeth should be a painless and natural process, the gums remaining healthy and the mouth sweet. Again, many parents believe that a child's first teeth should not be extracted under any condition whatever, no matter how the child may suffer. It is not recommended that the first teeth should be extracted because they may be discoloured or decayed provided the gums are healthy and the child suffers no pain, but there is only one course open when the gums are inflamed, where the teeth are suppurating at their roots, and where abscesses arise, and that course is to have the offending teeth removed and the gums restored to a healthy condition. The first teeth require relatively as much care and attention as do the permanent, but the bringing of this home to parents involves a hard uphill fight.

The permanent teeth should have every care and attention

from the moment they first make their appearance. Nature is proverbially bountiful, but her generosity does not run to a third set of teeth. Careful brushing of the teeth and cleansing of the mouth will go a long way in keeping the teeth healthy and preserving them for the subsequent years of life, and every child should be taught this lesson early. The little care and time necessary to keep the teeth clean are grudged by children no doubt, but that which may have to be compelled at first by disciplinary measures becomes in time a fixed habit. Many of the senior boys and girls look with equanimity on the prospect of losing their teeth, and girls especially are inclined to think that the obtaining of an artificial set soon after leaving school is the normal course of events.

As in former years notices were sent to parents in all cases where there was inflammation of the gums, where there was suppuration from the sockets, or when the child's health was considered to be affected by the presence of decayed teeth. The special notices bear on the reverse side printed instructions as to how the teeth can be kept healthy and clean. In all, 590 such notices were sent.

Nose and Throat.—TONSILS—It is very satisfactory to note that there is again a diminution in the cases of tonsillar enlargement met with this year. The decrease is well marked, and, judging from previous years seems to be progressive. It appears that parents are now becoming more alive to the dangers and discomfort which may arise if enlarged tonsils are neglected, and are seeking medical aid when they become aware of the existence of the condition in their children. But notwithstanding the well-marked decrease this year there are still far too many cases of enlarged tonsils amongst the pupils. Frequently no bad effects were noticed from their presence, but still they constitute a constant menace to the health of the child, and when there is little or no tendency for these enlarged tonsils to shrink the advisability of having them removed should be seriously considered. On the other hand, hundreds of cases were met with where the children were undoubtedly suffering from the effects of tonsillar enlargement. This was evident from their being affected with recurring attacks of sore throat, from intermittent or permanent attacks of deafness, from the presence of discharging ears, from defective articulation, and so on. Minor degrees of enlargement were ignored provided there was no interference with health or scholastic progress, but in all cases where any bad effect was observed which was judged to arise from the tonsils, notices were sent to parents calling upon them to have the child placed under medical treatment. There were certain extreme cases of enlarged tonsils where nothing but surgical interference would be effective.

The number of cases of enlarged tonsils recorded was:—

	BOYS.		GIRLS.	
Infant group,	412	or 8.7 per cent.	875	or 8.2 per cent.
11 year ,,	375	„ 8.2 ,,	417	„ 9.3 ,,
Senior ,,	339	„ 8.9 ,,	326	„ 9.1 ,,
Total,	1126		1618	

In addition 59 cases were recorded amongst the selected children. Special notices were sent to parents in 470 cases.

ADENOIDS.—This condition which is due to an over-growth of the lymphoid tissue which lines the naso-pharyngeal passage (i.e., the passage between the nose and throat) accounts for most of the cases of "mouth-breathing" in children. In a great many instances it is accompanied by enlargement of the tonsils; in fact some authorities assert that adenoids are present in all cases of long-standing tonsillar enlargement. The obstruction caused by adenoids varies in degree, but many cases were met with where the obstruction was so extreme that it was a physical impossibility for children to breathe through their nostrils. The deformities which may follow if adenoids are allowed to persist are characteristic. Through lack of use the nostrils become pinched and collapsed; the roof of the mouth becomes narrow and highly vaulted; the teeth are "crowded," and the front teeth overlap; the bridge of the nose gets broadened; the lower jaw hangs constantly down, is not fully developed, and the chin recedes; and the whole aspect of the child is one of dullness and stupidity. In many cases also there is impaired hearing and the speech also is interfered with. There may be some diversity of medical opinion as regards the removal of enlarged tonsils, but there is unanimity of opinion when adenoids are under consideration. These growths must be removed, and removed early, if the child is not to be seriously prejudiced as regards health. After removal care must be taken to prevent these growths re-appearing, and this can be best done by training the child to breathe through his nose and by the giving of suitable breathing exercises.

Other conditions which may cause obstruction to breathing and which may be attended by all the serious sequelae of adenoids are polypi in the nose, enlarged turbinate bones, deformed septum, etc., and several of these conditions were seen amongst the pupils.

The number of scholars noted as suffering from adenoids was:—

	BOYS.		GIRLS.	
Infant group,	117	or 2.4 per cent.	147	or 3.1 per cent.
11 year ,,	75	„ 1.6 ,,	57	„ 1.3 ,,
Senior ,,	58	„ 1.5 ,,	40	„ 1.1 ,,

In addition to these, 88 cases were discovered amongst the selected children. Special notices were sent to parents in 210 instances.

GLANDS.—The number of children who suffered from glandular enlargement was proportionately greater this year than last. It is difficult to give a reason for this increase as there are so many factors to be determined, such as the presence of severe epidemics; the state of trade, which will reflect on the feeding of the children; the climatic conditions; and so on. Glandular enlargement is in many cases a direct result of general debility, but this year there was no special deterioration of the physique of the pupils. Measles, however, were prevalent in many parts of the County and probably account for an increase in the number of cases of enlarged glands found in the districts affected. But there can be no doubt that an exceedingly large number of cases of enlarged glands arose from causes which were entirely preventable. Such cases embrace all those where the resulting enlargement arose from decayed teeth and suppurating gums, from chronically enlarged tonsils, from impetigo of the face, and from impetiginous sores due to verminous irritation of the head. All these are preventable, but they formed by far the largest proportion of causes of gland enlargement. In many cases the glands were in such a state that surgical treatment was necessary. Again, enlarged glands were often found in children who were clean and well-cared-for, but whose physique was naturally poor. Such cases will be more fully dealt with when glandular tuberculosis is discussed. In those cases where decayed teeth, enlarged tonsils, impetigo, or uncleanness were the cause of glandular enlargement, notices were sent for these conditions, and if they were remedied the gland affection would disappear on the cause being removed. Where, however, the glands were showing signs of breaking down, or where actual abscess existed, special notices were sent home.

From the following table it will be seen to what a large extent the infant children were affected, but this only bears out what has been said before that it is at this age, when the little ones can do so little for themselves, that the evil results of neglect are most apparent. The number of children recorded as suffering from some form of glandular enlargement was:—

BOYS.				GIRLS.			
Infant group, 850 or 17.9 per cent.				878 or 12.6 per cent.			
11 year	..	481	.. 10.6	..	547	.. 12.6	..
Senior	..	335	.. 8.8	..	324	.. 9.1	..

In addition to these, 35 cases were recorded amongst the selected children. Special notices were sent in 73 instances

where the enlargement was extreme and where nothing was being done in the matter of treatment.

Eyes.—**EXTERNAL EYE DISEASE.**—The percentage of cases of eye disease does not show much alteration this year, for although there is a slight increase in the percentage of infant boys affected, there is a corresponding diminution as regards the infant girls, and the senior pupils. As in former years, inflammation of the eyelids (*blepharitis marginalis*) was by far the commonest of the eye diseases found. It is a great pity that this condition is not looked upon with the gravity it deserves, for there is no eye affection which is at once so wide-spread and so disfiguring. The most pitiable aspect of it all is that when treated early and thoroughly it is easily cured, but when allowed to persist with only half-hearted, spasmodic attempts at treatment, the disease in time becomes one of the most chronic of all eye affections. A change takes place in the margins of the eyelids; they become thickened and often everted, thus exposing the inner surface of the lids, and the resulting disfigurement is great. Even although matters may not go as far as this, the unsightliness of a child or youth with eyelids almost denuded of eyelashes and with thick incrustations of purulent matter adhering to the rims ought to make an irresistible appeal to every right-thinking parent. Every case of blepharitis should be treated at once; the earlier it is seen to, the better will be the result. The disease is often associated with defective vision, and correction by suitable glasses must be effected if the disease is to be banished. There is no doubt that many of the other eye conditions which were recorded, such as eczema of eyelids, ectropion, etc., had their origin in blepharitis.

Another common condition found was where the cornea (the transparent part of the eyeball) was cloudy or opaque. These corneal opacities may arise from a variety of causes, but ophthalmologists are agreed that a large proportion of them are avoidable and are the result of inefficient treatment or no treatment at all. Many of these opacities arise from eye disease acquired very early in life and are entirely preventable; others arise from ulcerative conditions later on which are neglected; others again are due to wounding of the cornea, and so on, the variety of causes being great. But it cannot be too firmly impressed upon the minds of all parents, teachers, and others who have the care or control of children, that every affection of the eye, however slight or trivial, should be treated. The eye is too precious an organ to neglect, and any condition which may disturb the eye should be seen to as early as possible by the doctor. If this were done far fewer cases of corneal opacities with consequent defective vision would be found in our schools,

Another condition which is frequently met with in schools is a type of conjunctivitis which is of a highly infective nature, and commonly spoken of as Epidemic Ophthalmia. This is caused by a germ which invades the lining of the eyelids and the covering of the eyeball (the *conjunctiva*) and sets up considerable inflammation. Young children are the chief sufferers, but it may also affect the older pupils and even adults. The disease is spread by contact, so that any child affected should be at once excluded from school. He should also have the exclusive use of a towel, handkerchief, etc., and all rags which have been used to wipe away the discharge should be burned at once. The disease is easily treated and should be followed by no bad results, but while it lasts it causes considerable pain and discomfort to the patient. Forty-one cases of this disease were found during the year, and in every case the child was excluded from school till cured. Other eye conditions found were, conjunctivitis (mild and acute), interstitial keratitis, ectropion, styas, inflammation of tear duct, phlyctenular conjunctivitis, etc.

The number of children affected with some form of external eye disease was as follows:—

	BOYS.				GIRLS.			
Infant group,	218	or	4.6	per cent.	221	or	4.7	per cent.
11 year „	102	„	2.2	„	124	„	2.8	„
Senior „	74	„	1.9	„	86	„	2.4	„

In the selected group 205 cases of external eye disease were found.

VISION.—The eyesight of the pupils examined showed a considerable improvement on that of last year, and it was satisfactory to note that many pupils with defective vision had been seeking medical advice without having been first notified by the School Medical Officer. It is to be hoped that the interest which has been awakened as regards attention to the vision of children will continue. But when one considers how much depends on the possession of good eyesight, it is amazing how many parents are still careless as regards the vision of their children. This does not apply only to the poorer classes where, perhaps, poverty forbids the having of the eyes tested and suitable glasses provided, but applies in a large measure to those who can well afford to have the child's vision corrected. There is a touching faith to be observed in many of these people, that the child who suffers from defective vision will "grow out of it" in time. In the meantime while the child is "growing out of it" he suffers from bad headaches, may have inflamed eyelids, and acquires a habit of contracting his brows and peering. In addition his scholastic progress is

bound to suffer, for even although he may be able to read, to see what is on the blackboard, etc., he does so only by straining his eyes and thereby adding to his already existing defect. Eye testing in school is performed by means of Snellen's test types, and if the child cannot read the regulation types at the prescribed distance, there is good ground for supposing that this child's vision requires correction. He may suffer from myopia (short sight), or hypermetropia (long sight), or from astigmatism. But no matter what is the condition which may exist, it is futile to expect that the child can continue at his ordinary lessons without having the vision attended to and run no serious risk. Errors of refraction certainly account for most cases of defective vision, but not for all. Opacities of the cornea, cataract (either congenital or as a result of injury), keratitis, and scarring from old inflammatory conditions account for a considerable proportion of the cases of defective vision. In these cases glasses will be of little use until the primary defect is removed. Often when opacities exist prolonged treatment is necessary and, although much may be done to improve the vision in certain instances, there are other cases where the outlook is rather hopeless. Take for instance those cases where there is ulceration of the cornea. This may be small at first and if treatment is taken up early, the resulting damage to vision may be slight or even nil. But if such cases are neglected there will in all probability be permanent and extensive injury to vision. As was said before no eye condition, however slight, should remain untreated, and the earlier the treatment the more hopeful is the outlook as regards the retaining of perfect sight. The vision testing of the infant children is not usually performed, and only those cases are tested where defective vision is suspected to exist. The vision, however, of all children in the other groups examined, is tested as a matter of routine. The following table gives the number of children found suffering from defective eyesight:—

	BOYS.		GIRLS.
11 year group,	481 or 10.6 per cent.		544 or 12.5 per cent.
Senior	391 .. 10.3 ..		479 .. 13.4 ..
	<hr/> 872		<hr/> 1023

In addition 607 specially selected pupils were found to suffer from defective vision. In all 2,512 notices were sent to parents requesting them to have the children's vision attended to. What has been accomplished by way of amelioration or cure will be discussed in a subsequent section of the Report under "Remedial Measures."

SQUINT. This condition, which is at once so disfiguring and

so serious a menace to vision, was met with in a very considerable number of pupils. In most cases only one eye was affected, but frequently there was double squint existing. Squint, however slight, is always associated with defective vision, and when the squint is pronounced and of long standing there is resulting impairment of eyesight which may amount almost to uselessness of the affected eye. Squint may arise from various causes—it may be due to inherent weakness of the eye muscles ; it may be the result of errors of refraction, or of corneal opacities ; it may follow some acute illness such as measles, meningitis, or diphtheria ; but no matter what the cause may be the condition must be treated early if there is to be any hope of saving the vision. If a squinting eye is allowed to remain untreated, the eye will gradually lose its power of vision owing to disuse. When squint is due to errors of refraction the child affected should have the eyes treated and suitable correcting glasses provided at the earliest opportunity. However, what was frequently found amongst the pupils was that the squint had been in existence for years before the child came to school and no treatment had been instituted. In the majority of those cases, the vision was now permanently damaged and no treatment would be of any avail. Once more is the warning given that in **all** eye conditions treatment must be instituted on the earliest possible occasion if the best results are wanted. Squint was found in the following number of school children:—

	BOYS.	GIRLS.
Infant group, 116 or 2.4 per cent.		97 or 2. per cent.
11 year „ 80 „ 1.7 „		97 „ 1.7 „
Senior „ 80 „ 1.4 „		48 „ 1.3 „

In the selected group 114 pupils were affected. Notices requesting immediate attention were sent to parents in 127 instances.

Ears.—INFLAMMATION.—As in former years discharging ears were the commonest variety of ear disease found in school children. The condition was not confined only to the younger scholars, but was equally common amongst the older pupils. There can be no doubt that here again neglect was evident in the great majority of cases, and over and over again the same tale was forthcoming of the discharge going on for months and years without any treatment, or with only half-hearted treatment at long intervals. In most cases the discharge arose from disease of the middle ear and the discharge was often so foul-smelling and profuse as to forbid the child attending school. When one reflects upon the serious results which may follow if this condition is neglected, it is a matter for great surprise that there should be so much parental apathy shown in the treatment

of the disease. The hearing is usually permanently damaged, but it may be that even the life of the child is seriously threatened. The disease often follows such an acute illness as scarlet fever or measles, but in many cases the disease is undoubtedly communicated to the ear from enlarged and unhealthy tonsils, and from the presence of adenoids.

Other affections found affecting the ear included such conditions as eczema of the ear, small abscesses at the entrance to the ear, and eczema intertrigo on the posterior surface of the ear. The practice of piercing the ears of little girls for the wearing of earrings is, unfortunately, not yet obsolete, though happily it is dying out. However, some cases were encountered where inflammation and suppuration of the lobe of the ear followed upon this procedure.

The number of cases recorded as suffering from some inflammatory condition of the ear was :—

	BOYS.			GIRLS.		
Infant group,	71	or	1.5 per cent.	44	or	.9 per cent.
11 year ,,	48	„	1.5 ,,	40	„	.9 ,,
Senior ,,	44	„	1.1 ,,	46	„	1.2 ,,

In addition to these 60 cases were recorded amongst the selected children. Special notices were sent to parents in 336 cases.

WAX.—This condition was still commonly found to exist in the ears of many of the pupils. The degree of accumulation of wax varied largely, from a slight deposit up to a large plug which completely blocked the whole entrance to the ear. This condition is not often followed by any serious result, but where the cerumen is abundant and hard there may follow considerable impairment of hearing, and it often accounts for a certain feeling of giddiness and “noises in the head” in the child affected. Again, the presence of wax often sets up considerable itching to relieve which the pupil will insert his none-too-clean finger into his ear and rub the passage. Several cases were seen where there was some degree of inflammation resulting from this procedure. Considering the ease with which the ears can be freed from accumulations of wax and what relief is experienced after it has been removed, it is surprising that so few parents take the trouble to have the condition remedied even after they have been notified by the School Medical Officer.

The number of pupils who had a more or less degree of ceruminous deposit in the ear was :—

	BOYS.			GIRLS.		
Infant group,	115	or	2.4 per cent.	109	or	2.3 per cent.
11 year ,,	158	„	3.4 ,,	115	„	2.6 ,,
Senior ,,	116	„	3.0 ,,	99	„	2.7 ,,

In addition 8 cases were found amongst the selected children. Notices were sent out to parents in 159 instances.

HEARING.—So far as acuteness of hearing is concerned the pupils are in a satisfactory condition. When any defect was observed in this respect it was largely the result of middle ear disease, the drum of the ear having been perforated. However several cases were seen where a certain amount of deafness was due to the accumulation of wax in the ears, or to the presence of enlarged tonsils or adenoids. When the defect arose from previous middle-ear disease the impairment of hearing would in all probability be permanent, but when arising from enlarged tonsils, adenoids, or ceruminous deposits cure would follow the removal of the cause. Some cases of deafness were also encountered where no special cause could be ascertained, but where in all probability the tympanum had become thickened and had lost some of its natural elasticity. The testing of the hearing is not generally done in the case of the infant children, as they give very misleading answers to the questions put to them. But where deafness was suspected amongst any of them simple tests were employed to ascertain if any defect really existed. In the case of the older children, the "whisper" test is usually employed, as this has been found to be the most accurate method.

The common causes of deafness amongst children may be summed up as follows:—Perforation of the drum of the ear (the *tympanum*) following upon long-continued ear discharges; the presence of plugs of wax in the ear, inflammation of the Eustachian tube (which connects the ear and the naso-pharynx), the presence of adenoids or enlarged tonsils, thickening of the tympanum, etc. The number of pupils recorded as suffering from some degree of deafness was:—

	BOYS.	GIRLS.
11 year group,	76 or 1.6 per cent.	71 or 1.6 per cent.
Senior „	81 „ 2.1 „	74 „ 2.0 „

In addition 90 cases were met amongst the selected pupils. Special notices were sent to parents in 160 cases.

Speech.—The number of cases of defective speech was comparatively small, being only 231 in all. The commonest defect was, as usual, "stammering," and it was found that boys were the principal sufferers. Stammering is not found to any great extent amongst the infant pupils, but as we progress upwards in the age scale, it is found that the condition becomes considerably commoner, and boys are much more frequently affected than girls. The condition is very largely one of nervous origin, and it is well recognised that up

to the age of thirteen or fourteen years, boys are much more self-conscious than girls. There is good reason to expect a cure when stammering makes its appearance for the first time during school life, as the defect will in all likelihood disappear after the age of puberty. Where the defect appears early in life, and when it persists throughout the school period the outlook as regards cure is not so hopeful, especially if the child has inherited any neurotic tendency. Much can be done in school and at home to train the child in the art of proper speaking, but the whole training must be directed to rid the child of the feeling of self-consciousness and the fear of ridicule. When dealing with such cases extreme patience is necessary, and instruction must be given with the utmost tact and sympathy if a good result is to be obtained. Again, cases were found where the speech was defective owing to the presence of hare-lip, cleft palate, or other malformation. The presence of adenoids and enlarged tonsils also accounts for a lack of clear articulation, but rarely gives rise to actual defect in speech. In one or two cases the proper formation of words was interfered with on account of the condition commonly called "tongue-tie," but this was easily remedied.

The following was the number of children who suffered from speech defect :—

	BOYS.			GIRLS.		
Infant group,	33	or	.7 per cent.	22	or	.4 per cent.
11 year ,,	49	„	1.7 „	29	„	.6 „
Senior ,,	38	„	1.0 „	11	„	.3 „

Mental Condition.—MENTALLY DULL.—This condition was encountered in comparatively few children. It is almost impossible for the School Medical Officer to state with accuracy when a child is dull and backward, seeing the child perhaps for the first time. The child, on being questioned with a view to ascertain what his mental calibre is, may be exceedingly diffident in the presence of a stranger, and if he suspects the reason of the examination he may become quite "dour" and not reply at all. Again, one cannot judge by appearance for often the dull-looking child is one of the smartest in the class, and on the contrary the bright, vivacious-looking child from whom one would expect sharp, ready answers, is, as regards school work, exceedingly far behind. Consequently, the numbers which are here given of those who are "dull and backward" are obtained largely from the reports of the teacher who has had the care of the children. Where mental dullness arose from the presence of some physical condition interfering with the child's progress—e.g. malnutrition, defective hearing, bad eyesight, etc.—notices were sent to parents to have these conditions seen to, but no case of mental dullness as such was intimated to the parents.

The number of children classed as dull and backward was :—

	BOYS.	GIRLS.
Infant group,	24 or .5 per cent.	12 or .2 per cent.
11 year „	16 „ .3 „	9 „ .2 „
Senior „	15 „ .4 „	5 „ .1 „

In addition 51 special cases were recorded as suffering from a similar condition.

MENTALLY DEFICIENT.—The number of children who were mentally deficient and who were in regular attendance at school was comparatively small, amounting in all to 27. The degree of mental derangement in these children varied, but as a rule the children belonged to the harmless type. Of course the proper place for all such cases of feeble-mindedness is in a special school, where instruction suited to their mental capacity could be given. One cannot expect in the ordinary elementary school that special time and attention can be devoted to these children although teachers in this respect do all in their power to help them on, but in the absence of special provision for their training these feeble-minded children are far better at an ordinary school than at none at all. They are at least under discipline, they learn to mix with other children and enter into their games, and they may in time absorb a certain amount of instruction.

In many of the cases of mental deficiency the origin of the trouble could be traced to some acute illness early in life, such as meningitis; in other cases the condition followed upon epilepsy, but in others no history of any acute illness or accident could be obtained. All teachers are cautioned to exclude the child from school should any manifestation of violence make its appearance or any tendency towards viciousness.

The following table shows the number of mentally defective children who were met with during the routine examinations :—

	BOYS.	GIRLS.
Infant group,	3 or .06 per cent.	2 or .04 per cent.
11 year „	2 „ .04 „	Nil.
Senior „	5 „ .1 „	3 „ .08 „

In addition 12 cases were met with amongst the selected children. In every case the parents were quite well aware of the existence of the mental defect.

Heart and Circulation.—The number of cases of defective circulation is still small, although owing to another age group of children being examined there is a slight increase upon the numbers recorded last year. It will be seen that the liability to some heart affection increases as we proceed upwards from the

infants, being greater in the 11 year group, and greatest of all amongst the senior pupils. This is only what is expected for such conditions as rheumatism and chorea, which have an adverse effect on the heart, are much commoner amongst the older pupils than amongst the infants. Again, as the age of puberty is approached, the physiological changes which occur at that time both in boys and girls often cause some temporary disturbance of the heart.

When heart affection was found amongst the infant children the condition was frequently congenital, no history of any acute illness being forthcoming. But in other cases the disturbance was said to date from some acute illness, measles and scarlet fever being usually blamed for the condition. Amongst the older pupils the increased percentage of heart trouble could be accounted for largely by the stress of puberty, and the defect was principally a functional and not an organic one. The use of tobacco amongst many of the senior boys accounted for many cases where there was irregularity of the heart and a feeling of oppression in the chest. Very few boys denied smoking when the condition of the heart led the School Medical Officer to enquire regarding the boy's indulgence in the habit, and even when a denial was forthcoming the tobacco-stained fingers, and the dull, unhealthy pallor of the skin would have been sufficient evidence. The number of school boys who smoke cigarettes is appalling, and notwithstanding our recent legislation on the matter, the selling of tobacco to boys goes on briskly in every town or village. In one school a boy was found to have no fewer than sixty-seven cigarette stumps in his pocket, gathered from the road and pavements. But amongst a certain class there is the utmost parental indifference as to whether the boys smoke or not, and more than one mother actually stated that the boys still at school got a regular allowance of pocket money for tobacco.

In all cases where an affection of the heart existed, whether due to functional disorder or organic disease, the affected pupil was exempted from all physical drill and from punishment. Other conditions were met with when the trouble was due to an enfeebled state of the circulation resulting in such disorders as chilblains, etc.

The number of scholars suffering from some defect of heart and circulation was as follows :—

	BOYS.		GIRLS.	
Infant group.	9	or 0.1 per cent.	7	or 0.1 per cent.
11 year "	23	" 0.5 "	27	" 0.6 "
Senior "	54	" 1.1 "	44	" 1.2 "

In addition 18 cases were found amongst the selected children.

Lungs.—Bronchitis was the most frequent disorder of the lungs discovered during the examination of the school children. It was found that the younger children were the chief sufferers and that the condition tended to be less common as the older pupils were reached. This is the usual experience in all medical practice, the lungs being more susceptible to bronchitic attacks in extreme youth and in old age. In connection with the greater incidence of bronchitis amongst the younger children, it must be remembered that in addition to the lessened resistance at that age, it is the period in which such acute illnesses as measles, whooping-cough, scarlet fever, etc., are most liable to be contracted, and, in fact, a great many of the cases of bronchitis met with were the direct result of one or other of these diseases. In addition to this also, it is amongst the younger pupils that we find the greatest number of enlarged tonsils, nasal obstruction, and adenoids, which conditions compel the affected children to breathe through their mouths. Mouth breathers are notoriously susceptible to bronchitic attacks owing to the cold inspired air not being adequately warmed and filtered by passage through the nose. In many cases the bronchitis was of a very minor degree and amounted perhaps to an occasional slight wheeze in the chest. Such cases, in the absence of any other sign, could frequently be neglected, but where the wheezing was at all pronounced, or when it was confined to a small circumscribed area, notice was sent to the parents. A small, localised patch of bronchitis is always suspicious. In the older pupils all cases were notified when the condition had lasted any considerable time. In some of these cases where suspicion was aroused a sample of the child's spit was microscopically examined by the County Bacteriologist.

Phthisis pulmonalis ("consumption of the lungs") is dealt with in a subsequent section of the Report.

The number of pupils recorded as suffering from some affection of the lungs was :—

	BOYS.	GIRLS.
Infant group, 113 or 2.3 per cent.		89 or 1.9 per cent.
11 year " 36 " 0.8 "		14 " 0.3 "
Senior " 31 " 0.8 "		14 " 0.3 "

In addition 20 cases were found amongst the selected children. Notices were sent to parents in 82 instances.

Nervous System.—EPILEPSY.—It is very satisfactory to note that this disease is exceedingly rare amongst the children attending school, only two cases being recorded last year. In one

case the condition was present in a rather aggravated form, and the child's parents were recommended to remove the child from school and have her placed under proper treatment. In the other case, the condition was one of "petit mal," one of the mildest forms of the disease, and the child being otherwise healthy, exclusion was not recommended meantime. It must be remembered, however, that the special examination of defective children made two years ago revealed the existence of many cases of epilepsy in the County though the children were not in attendance at any school.

The following were found suffering from the disease :—

			BOYS.	GIRLS.
Infant group,	...	...	1	nil.
11 year „	...	...	nil.	nil.
Senior „	...	...	nil.	nil.
Selected „	...	...	nil.	1
			<hr/>	<hr/>
			1	1

CHOREA.—This condition was also seldom met with amongst the children at school. The cases were all of a rather mild type, but still it was found that in only two out of the seven cases found was there any treatment being undertaken. Probably the disease was of such a mild nature as to have escaped the notice of the parents. In every case of chorea the teacher was advised not to subject the child to any severe strain in the matter of instruction, and to exempt him from all home lessons and all punishment. In one or two cases the parents were advised to take the child temporarily from school and have thorough treatment carried out.

The following were the numbers recorded as suffering from the condition :—

		BOYS.	GIRLS.
Infant group,	...	nil.	2 or .04 per cent.
11 year „	...	nil.	1 „ .02 „
Senior „	...	nil.	1 „ .02 „

In the selected group of children 2 boys and 1 girl were found to be affected.

INFANTILE PARALYSIS.—This condition was not met with in its active state amongst any of the pupils, but from the deformities left it was found that 29 had suffered from the disease previous to coming to school. The disease usually manifests itself, as the name implies, in early childhood, and after the acute attack has passed very often there is permanent damage left. Frequently the evil results of the disease are not noticeable for some considerable time after the child has recovered, and in some cases the illness of the child may be so slight as

to be considered some minor childish ailment. It is only when the parents discover that the child has a limb which does not develop properly ; when a foot or hand, which formerly was quite natural, is now becoming deformed ; or when a loss of power is noticed, that the full significance of the ailment is recognised. A child who has some such defect may be otherwise quite healthy and grow up to be a normal man in every other respect. In some cases, however, the attack, if it has been a virulent one, leaves considerable damage in its trail, and in addition to the physical wreck there may be an accompanying mental disablement. Many of the mentally defectives encountered during the special examination of those children showed unmistakable signs of having suffered in childhood from infantile paralysis.

The following are the numbers met with who had suffered from this condition :—

	BOYS.			GIRLS.		
Infant group,	7	or	0.1 per cent.	6	or	0.1 per cent.
11 year „	6	„	0.1 „	1	„	0.02 „
Senior „	2	„	0.05 „	3	„	0.08 „

In addition to these 1 boy and 3 girls were found amongst the selected group. It was not found necessary to notify any of the parents of the condition.

Tuberculosis.—This condition, as formerly, was recorded under three chief headings, namely pulmonary tuberculosis (phthisis), glandular tuberculosis, and osseous tuberculosis, these being the principal varieties which are met with amongst school children. Other conditions were met with which undoubtedly had their origin in the tubercle bacillus, e.g. strumous ophthalmia, tubercular otorrhoea, etc. These unclassified tubercular conditions were, however, few in number as compared with the others.

PULMONARY.—This condition, by reason of its powers of infection and its great danger to life, ranks as the most important of the tubercular affections. The disease is not encountered to any great extent amongst the scholars, but this is not to say that it does not exist. The age period of school children is not one in which the disease is common in its active state, but there may be lying in the child's lungs or glands some little patch or focus which remains undetected and only awakes into activity after the child has left school. Thus we find from statistical records of phthisis that the age period during which pulmonary tuberculosis is commonest lies between the ages of sixteen and thirty-five, an age when the individuals affected have usually passed beyond the jurisdiction of the School Medical Officer. But the individual who later on develops the disease may quite possibly have had the germs present

during his school life though there may have been no actual manifestation of the disease. That this is so has been abundantly proved by the discovery of tubercular foci in children who had died from other diseases not connected even remotely with tuberculosis, for example diphtheria, but who had exhibited during life no evidence whatsoever of having harboured the tubercle bacillus. This shows how difficult, nay, often how impossible it is to diagnose in children the presence of minute foci of the disease when these are lying dormant and giving rise to no symptoms.

It is not to be supposed that all children, even though they harbour latent foci of tubercle, will ultimately develop an active tuberculosis. Many of them go through life without any manifestation of the disease at all, the foci having undergone spontaneous cure. But every now and again a case arises when a child on leaving school is subjected to certain conditions of living and of work which diminish his resisting power and the tubercular focus awakes into activity. When a boy or girl develops phthisis, say a year or so after leaving school, people often wonder why the condition has not been recognised years before and suitable treatment instituted; but the difficulty of diagnosing the presence of tuberculosis in the absence of all symptoms is exceedingly difficult. But although a tubercular focus may be present it need not become active. If the bodily tissues are virile enough to combat the tubercle bacillus, the individual may never be cognisant of being infected, and it is only when the tissues are enfeebled that the bacillus gains the ascendancy.

Preventive treatment is better than waiting till the disease is well established, and the proper time to begin treatment is in the early years of life. The treatment is then not to cure a disease which has already obtained a firm foothold, but to prevent the disease making its appearance at all. Better hygienic surroundings, airy houses, and efficient drainage; the regulation of the child's hours of sleep, play, and work; the correction of various conditions which tend to lower the vitality of the child (e.g. enlarged tonsils, nasal obstruction, etc.); and the providing of the child with wholesome food—all these will do more to stamp out tuberculosis from our midst than a tuberculosis dispensary at each street corner, or a sanatorium in every village will ever effect. Certainly all cases which suffer from tuberculosis must be treated, and treated thoroughly, but the treatment must not stop at the individual affected. The treating of isolated cases is futile if home conditions are allowed to exist which are only breeding grounds for fresh cases.

The School Medical Officers rigidly exclude every case of pul-

monary tuberculosis from all school attendance for a period of at least six months, and the disease is notified to the Medical Officer of Health of the area in which the school is situated. This notification has already been carried out in this County ever since the scheme of medical inspection has been inaugurated, but what has all along been done voluntarily is now made compulsory by law. What will be the ultimate effect of this compulsory notification it is at present impossible to say, but theoretically, at least, it should make for good. The establishing also of dispensaries and hospitals for treatment should have a beneficial effect, but how far these will go in stamping out tuberculosis from our midst one cannot predict. But what can be said with absolute confidence is this, that unless the laws of health are more strictly observed at home, unless the early years of a child—the years during which he is laying the foundations of his youth, manhood and old age—are made as healthy as possible, tuberculosis in any of its forms will never be eradicated from our land.

The number of cases of pulmonary tuberculosis discovered amongst school children was :—

		BOYS.	GIRLS.
Infant group, ...		Nil.	Nil.
11 year „ ...		Nil.	Nil.
Senior „	2 or .05 per cent.		1 or .02 per cent.

In addition 3 were found amongst the selected children and 2 whilst revisiting the schools. What has been done in the matter of treatment is discussed in a later section of the Report.

OSSEOUS.—This variety of the disease is more frequently met with amongst children than is pulmonary tuberculosis, and although it neither has the same powers of infectivity, nor does it menace the life of the sufferer to the same degree as the pulmonary variety, it cannot be lightly looked upon. The presence of osseous tuberculosis in a child indicates that the child is a “tuberculous” subject, and it appears to be largely a matter of chance that the germs select the bones for their attack. But in the vast majority of cases when the bones are affected the glands are involved in a tubercular infection. In fact, it is usual for the glands to have become infected first, so that the presence of tubercular bone disease is usually symptomatic of general tubercular infection. How the lungs should escape so often when both bones and glands are extensively involved in tubercular disease is surprising.

There are certain sites which the tubercle bacillus specially favours when it attacks the bones, these sites being the ends of the long bones, especially near a joint. Thus, we

and that one of the common sites is at the hip-joint : another is the elbow-joint ; and, again, the long bones of the hand and feet. In young children the bones of the vertebra are frequently the seat of tubercular infection, and when softening takes place the bones project giving the humped deformity so characteristic of Pott's disease of the spine. If children are the subjects of active osseous tuberculosis there is no doubt they should be exempted from all school attendance till the condition has ceased to be active. Residence in the country, plenty of fresh air, good food, and rest are the cardinal points in treatment. All cases where there was discharge from the bones were excluded from school in order that the child might have the opportunity of being placed under proper treatment.

The number of children found suffering from tubercular bone disease was :—

	BOYS.			GIRLS.		
Infant group.	7	or	0.1 per cent.	6	or	0.1 per cent.
11 year „	2	„	0.04 „	4	„	0.04 „
Senior „	1	„	0.02 „	2	„	0.05 „

In addition to the above, 2 boys and 3 girls were found to suffer from the condition amongst the selected children.

GLANDULAR.—This is the commonest form of tubercular disease which is met with in schools. Only those cases which could be said to be definitely involved in tubercular degeneration were recorded as “ tubercular,” but there were hundreds of cases where the glands were found to be enlarged, and many of these were on the point of breaking down. If all these cases had been included there is no doubt that the number of children recorded as suffering from tubercular gland disease would have been very large indeed. All enlarged glands in children do not necessarily become tuberculous, but the enlargement is the first step on the down grade and unless treatment is instituted there is grave danger of the glands becoming tuberculous. Hence, although there were only notified this year some 28 cases of tubercular adenitis, there were hundreds of cases which were more or less well on their way to becoming tuberculous.

It cannot be emphasised too strongly that glandular tuberculosis is frequently the result of parental neglect—not the sordid neglect which results from dissipation or vice—but neglect of what parents are pleased to consider “ minor childish ailments.” And foremost in the rank of these so-called “ minor ” ailments stands the condition known as enlarged tonsils. There is an exceedingly intimate connection between the tonsils and the glands of the neck, and the tonsils might be said to act as a “ first line of defence.” When the tonsils become inflamed

and enlarged, clearly something must be wrong, and steps should be taken to effect a cure. But treatment is often confined to the placing of a warm flannel round the neck and waiting till the inflammation subsides. The tonsils may remain permanently enlarged, and in such a state their power of offering resistance to the entrance of germs is considerably diminished. It has been proved conclusively that the tubercle bacillus can pass directly from such a weakened tonsil to the glands of the neck, and when one considers how intimately the various glands of the body are linked up with each other the wonder is not that all the glands should become infected, but that the disease is often localised for a long time. When a tonsil is chronically enlarged and its crypts filled with soft cheesy material, as is so often found amongst children, there should, if possible, be thorough and complete removal of all the diseased tissue. This is a canon of surgical treatment and applies as forcibly to the treatment of diseased tonsils as to any other diseased part.

The teeth rank second in the list of causes of enlarged glands in the school child, and here again one meets with extreme neglect both on the part of parents and child. The gums have been found swollen and inflamed, suppuration going on apace from one, two, or more decayed teeth, whilst absolutely nothing was being done at home for the condition. The pus, if it gets free exit, does not do a great deal of harm, but quantities of it are bound to be absorbed into the system by means of the lymphatics. These lymphatics again are connected with the lymphatic glands and consequently the latter get inflamed because of the harmful germs conveyed to them. Over and over again cases of enlarged glands in the neck have been caused by decaying teeth, and once the glands are enlarged and perhaps damaged, it is an easy transition to their becoming involved in tuberculous softening. If the tonsils, teeth, and adenoids were given that care and attention which they undoubtedly deserve there would be far fewer cases of glandular enlargement, and consequently fewer cases of tubercular adenitis.

When a child is suffering from active glandular tuberculosis, that child should not be in school, and the treatment should be thorough. He should be sent to the country and have good food, plenty of fresh air, etc., and be placed under the care of the doctor there. There is no use sending a child away in the acute state if he is not to have proper medical supervision.

The number of cases of tubercular gland disease was:—

	BOYS.		GIRLS.	
Infant group,	3 or	.06 per cent.	6 or	.1 per cent.
11 year ,,	3 ,,	.06 ,,	3 ,,	.06 ,,
Senior ,,	1 ,,	.02 ,,	5 ,,	.1 ,,

In addition 5 boys and 2 girls were found amongst the selected children.

In addition to these three chief groups of tubercular disease certain other conditions more or less intimately connected with the tubercle bacillus were discovered during the examination of the pupils :—hydrocephalus (water in the head) 3 cases, and lupus vulgaris, 1 case.

Rickets.—The number of cases of rickets in the children of our schools is still fairly large. The condition is one which makes its appearance early in life, and the resulting deformities are well-marked long before the children come to school. It is seldom indeed that cases are found in school where the disease is active, and, in fact, many cases were met with where the child had apparently suffered from rickets in early childhood, but who was now quite strong and healthy. The disease is one intimately associated with bad hygienic surroundings, over-crowding, want of proper ventilation, improper feeding, and neglect as regards proper cleansing. The single apartment in the tenement in the congested areas is, *par excellence*, the natural habitat of the disease, so that one expects to find rickets in its most aggravated form in the large industrial centres. This is what is found, and the disease is not at all common in the country districts.

The degree of deformity varied very largely, from a slight condition of bow legs up to well-marked and extensive deformity involving most of the bones of the body. When the ribs were extensively implicated in the disease the worst effects were noticeable, for with a 'deformed chest the proper expansion of the lungs is hampered and the child is more liable to contract lung disease. Some of the worst cases of rickets are suitable for receiving instruction at a school for physically defective children when such schools are established.

The following is the number of children who suffered more or less from the disease :—

Infant group,	85 or 1.7 per cent.	60 or 1.2 per cent.
11 year ,,	20 ,, 0.4 ,,	10 ,, 0.2 ,,
Senior ,,	8 ,, 0.2 ,,	2 ,, 0.05 ,,

In addition, 20 cases of rickets were discovered amongst the selected children.

Deformities.—The following are the principal deformities which were met with amongst the pupils. These deformities

were the result either of congenital malformation, injury, or disease :—

Amputation of one leg,	7
„ one arm,	2
„ hand and foot,	1
„ foot,	1
„ one or more fingers,	3
Ankylosis of knee joint,	1
„ elbow „	1
Bifid uvula,	16
Cleft palate,	4
Chest deformity,	4
Dislocation of arm,	1
„ hip, (congenital),	3
Deflected nasal septum,	3
Fracture of forearm (actual),	1
„ collar bone „	1
Hare lip,	5
Loss of one eye,	1
Pes planus (flat foot),	1
Shortening of leg,	6
Stenosis of auditory canal,	1
Spinal deformities,	10
Torticollis (wry neck),	3
Undescended testicles,	1
Webbed fingers,	1

Other Diseases or Defects.—In addition to the foregoing there was a large number of other defective conditions. The number and variety of these are shown in the following table :—

Achondroplasia,	1
Acne,	14
Alopecia,	27
Anaemia,	178
Athetosis,	1
Blindness in one eye,	3
Bursitis,	1
Chlorosis,	6
Dermatitis,	5
Eczema,	13
„ Capitis,	69
„ Intertrigo,	91
Eneuresis,	22
Exostosis,	2

Haemophilia,	1
Hernia,	12
Herpes,	5
Hepatic enlargement,	1
Ichthyosis,	20
Incontinence of faeces,	2
Inflammation of antrum of Highmore,	1
Marasmus,	2
Naevus,	4
Nasal polypi,	3
Nephritis,	1
Ozoena,	13
Paronychia,	1
Phimosis,	1
Psoriasis,	15
Purpura,	2
Rhinitis,	31
Scarring (burns, &c.),	5
Seborrhoea,	90
Syphilis (congenital),	1
Thyroid (enlarged),	8
" Tongue-tied,"	3
Urticaria,	4
Verrucae Vulgaris,	6
Whitlow,	1
Word and figure blindness,	1
Worms (tape),	2
„ (thread,	2
Xerodermia,	6

Infectious or Contagious Disease.—The number of infectious or contagious diseases in the schools still continues to be comparatively small. Amongst the children examined the following conditions were met with :—Diphtheria, 1 ; Chicken-pox, 6 ; Mumps, 5 ; Whooping-Cough, 2 ; Epidemic Ophthalmia, 41 ; Pulmonary Tuberculosis, 8 ; Glandular Tuberculosis, 28 ; Osseous Tuberculosis, 29 ; Ringworm of Scalp, 52 ; Ringworm of Body, 10 ; Favus, 2 ; Scabies, 50 ; and Impetigo, 180.

The following tabular statement shows the number of scholars excluded from attendance at school, the disease or cause for which exclusion was necessary, and the various Health Authorities which were notified of these conditions :—

HEALTH AUTHORITY.		Ringworm of Scalp.	Ringworm of Body.	Favus.	Scabies.	Impetigo.	Pulmonary Tuberculosis.	Glandular Tuberculosis.	Diphtheria.	Chickenpox.	Mumps.	Whooping Cough.	Epidemic Ophthalmia.
<i>County.</i>													
UPPER WARD, -	-	3	1	...	2	1	1	...	...	1	...	...	...
MIDDLE „	-	12	6	...	23	11	3	2	1	5	1	1	16
LOWER „	-	2	2	1	4	...	1	4	...	...	...	...	18
<i>Burgh.</i>													
AIRDRIE, -	-	2	...	...	2	...	...	...	...	...	...	...	...
BIGGAR, -	-	8	...	...	...	...	...	...	...	...	1	...	...
COATBRIDGE, -	-	2	1	1	8	...	...	...	...	...	...	1	2
HAMILTON, -	-	3	...	...	...	3	...	...	...	...	2	...	...
MOTHERWELL, -	-	17	...	...	7	3	1	1	...	...	...	...	5
LANARK, -	-	...	...	...	...	...	...	4	...	...	...	...	...
RUTHERGLEN, -	-	...	...	...	4	...	2	...	...	...	1	...	...
WISHAW, -	-	3	...	...	...	1	...	1	...	...	...	...	...
		52	10	2	50	19	8	12	1	6	5	2	41

PART III.

REVISITING OF SCHOOLS.

This branch of the medical inspection and supervision of school children is one of the most important of the whole scheme. The object in revisiting schools may be shortly summed up as follows :

1.—*To re-examine all those pupils, who, at the routine examination were found to suffer from some physical defect which called for immediate treatment, and to ascertain what has been done to carry out the School Medical Officer's recommendations.*

In those cases where nothing has been done in the matter of treatment, notices are again sent to the parents if the child's condition is not improved.

2.—*To examine those children who have returned to school after being excluded because of some infectious or contagious disease, such as cases of ringworm, scabies, epidemic ophthalmia, etc.*

It is found that a good many of these cases have to be again excluded, the disease not being quite cured.

3.—*To see any new cases which the teacher has selected as requiring examination since the School Medical Officer's last visit.*

4.—*To re-examine all cases of neglect or uncleanness.*

As the revisits are "surprise" visits, that is, they are not intimated to the children, the School Medical Officer sees the pupils in their normal condition. It is a well-known fact that children are often specially cleansed and clothed in anticipation of the medical inspection and so a false impression may be obtained regarding the usual state of cleanliness or clothing of these pupils. It often happens that certain children whom the teacher had intended for examination because of neglect or uncleanness are kept at home during the routine examination, and it is only at the unannounced revisits that these pupils can be seen. These are a few of the objects attained by the revisiting of the schools, but they are sufficient to indicate what an important part the revisit plays. The revisiting is not equally urgent in all schools, and in fact there were many schools where only one revisit was considered necessary. It is chiefly in the large schools in the industrial centres that this supervision is most needed, for it is here that the bulk of the verminous cases are found and where most of the contagious or infectious conditions occur.

Each of the 235 schools in the County was revisited at least once during the year; 144 schools were revisited twice; 42 on three occasions; 1 on four occasions; and 1 on five

occasions. The number of children seen during the first revisit amounted this year to 5,528; those seen at the second revisit amounted to 4,470; at the third revisit 1,502; at the fourth revisit 48; and at the fifth revisit 32. This makes a total of 11,580 re-examinations because of defects found at the routine examination. Of course it must be understood that many of the children were re-examined at every revisit. This applies to those cases who were receiving no treatment for their defect, and also to those children who were notified as being verminous. If a child is found to be verminous at the routine examination that child is kept under observation and is presented for re-examination at each revisit. This is absolutely necessary for in this condition lapses are frequent. Where a Medical Officer finds that a child has had say, his enlarged tonsils removed, or had suitable glasses provided for his defective eyesight, that child need not be presented at any subsequent revisits; but it is otherwise when dealing with cases of uncleanness. Improvement may be maintained for a few weeks or months, but over and over again those cases have to be re-notified owing to re-infection with vermin.

PART IV.

REMEDIAL MEASURES.

The estimate of the benefit arising from the medical inspection and supervision of school children can best be obtained by noting what has been accomplished in the matter of remedying the various defective conditions which were observed during the examination of the pupils. To ascertain this the School Medical Officers and Nurses kept in as close touch as possible with the defective cases and improvement or cure had to be actually seen, or definite information obtained that treatment was being carried out, before the child was recorded as being "cured," "improved," or "under treatment." That good results are accruing from medical inspection is now generally conceded, and even those who were most sceptical at the commencement of the scheme are acknowledging that there is a cleaner and healthier tone observable amongst the schools in the poorer districts.

The accompanying table (table C.) shows in detail the principal defective conditions notified in each School Board area, and the number of these conditions which have received treatment. The number of pupils, who had suitable glasses provided for defective vision, and the number of cases in which surgical treatment was carried out for enlarged tonsils, are also shown.

Table C.— SHOWING THE REMEDIAL MEASURES INSTITUTED.

[illegible]

In the following paragraphs some of the more outstanding defects are dealt with, showing what has been accomplished in the matter of improvement or cure.

CLEANLINESS.—The personal cleanliness of the pupils is a matter which affects every home and is a subject in which parents are naturally extremely interested. No child should be asked to incur any risk of becoming contaminated with vermin at school and if this risk were reduced to a minimum, or altogether non-existent, parents would feel much easier in their minds. It is probably too much to expect that illness will be banished from our schools, but surely it is well within the bounds of reason to look forward to the time when vermin and all personal uncleanness will be a thing of the past. Headmasters and class teachers are now thoroughly alive to the extent and magnitude of the evil, and are heartily co-operating with the School Medical Staff in combating this distressing condition. School Boards also are having the matter brought prominently before them, and are giving the Medical Officers all the assistance in their power.

It might be well to repeat here what is the procedure in dealing with those pupils who are in a verminous or unclean state. When the Medical Officer finds that a child harbours vermin on his head, body, or clothing the fact is brought prominently before the parents or guardian of the child, and an urgent demand is made to have the child cleansed forthwith. If the case is an aggravated one, the pupil is excluded from school at once, and a notice calling for immediate cleansing is sent home with the child. When the contamination is of a mild degree and is clearly an accidental one such stringent measures are not adopted. All notices bear printed instructions how effective cleansing can be accomplished. If, at a revisit, no improvement is found in the condition of the child he is again excluded from school and a warning notice sent to the parents intimating that it may be necessary to take action if the condition is allowed to persist. If this is not effective, the School Nurse visits the home and gives verbal instruction to the mother. In persistent cases of uncleanness where the homes are suspected to be verminous notice is sent to the sanitary authority of the district, and in many cases much good has resulted from this procedure.

This year several of the worst cases were dealt with under Section 6 of the Education (Scotland) Act, 1908, and in some instances imprisonment or fine followed. These cases are specially mentioned at the end of this section. It will be seen that considerable forbearance is

exercised by the School Medical Officers in dealing with neglectful parents, but more stringent measures will certainly be taken in future. With the appointment of two extra Nurses more home visiting will be undertaken and good results are expected to follow. The following table shows what has been accomplished by way of improvement or cure as ascertained at the revisits to the schools.

	On Head.	On Body.
Number of children notified for Nits, ...	1087	346
" " improved or cured,	646	155
" " notified for Lice, ...	704	805
" " improved or cured,	344	481

These numbers are still enormous, but with each succeeding year it is hoped that they will get progressively smaller till they ultimately vanish.

Proceedings taken under Section 6, Education (Scotland) Act, 1908.—In several of the School Board areas action was taken against certain parents or guardians who were persistently sending their children to school in a filthy and verminous condition, in spite of all warnings and instructions sent them. Altogether 24 families, representing 50 children, were dealt with. In each case the parents or guardians were summoned before the School Board and a caution was administered. In most instances this had the desired effect, but there were six families who paid no attention to this warning and against whom it was necessary to take further action. The following shows what penalties were imposed in these cases :—

Case 1.—(Blantyre) Male guardian of 3 school children.
Penalty : £2 or 16 days' imprisonment.

Case 2.—(Tollcross) Parents of 3 school children.
Penalty : Severely admonished.

Case 3.—(Tollcross) Parents of 3 school children.
Penalty : Male accused, 10s or 7 days' imprisonment.
Female accused, 14 days' imprisonment.

Case 4.—(Tollcross) Parents of 2 school children.
Penalty : £2 or 20 days' imprisonment.

Case 5.—(Tollcross) Parents of 2 school children.
Penalty : Male accused, 10s or 7 days' imprisonment.
Female accused : 10s or 7 days' imprisonment.

Case 6.—(Tollcross) Parents of 3 school children.
Penalty : Male accused, 14 days' imprisonment.
Female accused : 14 days' imprisonment.

VISION.—Many of the children suffering from defective vision have this year received treatment, and, although in a considerable proportion of cases, no attention was paid to the notices sent home, yet it is very encouraging to find that there is a greater interest being taken by parents in the eyesight of their children. No doubt in many cases the parents would have seen to the remedying of the defective vision, but poverty forbade them. The cost of having the vision tested by experts and the providing of suitable glasses is often more than the family funds can stand. It is not so often lack of parental interest as lack of means which prevents the child being attended to, and if an oculist were engaged by each School Board and an easy system of paying for the prescribed glasses in force, many more parents would send their children to have their defective vision put right. The School Board of Rutherglen has recently taken this matter up and has appointed an oculist to examine those cases which have been reported on as defective by the School Medical Officer. It is to be hoped that before long this example will be followed by many other School Boards in the County.

The following table gives the number of cases of defective vision in which medical advice had been sought, and where suitable glasses had been obtained.

Number of cases of defective vision notified, ...	2502
“ “ where medical aid was obtained, ...	385
“ “ where medical aid was obtained and suitable glasses provided, ...	583

TEETH.—The state of the teeth, as has already been indicated, was very unsatisfactory, and it is rather disappointing to find how few parents feel called upon to act up to the School Medical Officer's recommendations. Seeing that only the very worst cases were notified to the parents it is a rather unfavourable commentary on the parental care of the child's teeth when we find that just about one-third of the cases received any attention. However, if any reliance can be placed upon the promises of the older boys and girls to brush their teeth regularly night and morning, we may find the teeth to be more satisfactory in the future. The only means of making the brushing of the teeth a regular habit is by teaching the child the use of the tooth brush early, and to see that the process is regularly carried out. This will become a fixed routine after a few months, and the boy or girl will in time as soon think of going out with unbrushed teeth as with unwashed face.

A School Dentist has been appointed by one of the School Boards, Cambusnethan, to examine the teeth of the school

children and to undertake treatment where necessary. The need of a School Dentist is an urgent one, not only in the congested industrial areas, but also in the country districts.

The number of children who had their teeth attended to as a result of notices sent to their parents is shown in the following table :—

Number of cases of defective temporary teeth notified.	189
" " where treatment was instituted, ...	72
" " of defective permanent teeth notified.	401
" " where treatment was instituted, ...	187

CONDITIONS OF NOSE AND THROAT.—Of all the harmful conditions which affect the nose or throat, the commonest was enlarged tonsils. Parents are now becoming more interested in this condition, and although only rather more than fifty per cent. of the parents took any action in having the child's enlarged tonsils seen to, still this is a decided improvement upon last year, when only in one third of the cases was any treatment instituted.

In some cases only medical treatment was required, but where this failed to alleviate the condition surgical treatment had to be resorted to. As adenoids accompany enlarged tonsils in a large proportion of the cases, it was found that in the majority of those cases where surgical treatment was instituted in regard to the tonsils the adenoids were removed at the same time.

The treatment in the case of glands often consists of nothing more than the cleansing of the mouth, the removal of decayed teeth, or the healing of septic skin conditions. With the removal of these causes glandular enlargement was usually much improved, if not altogether cured.

The following tables show the number of cases notified, and also the number where remedial measures were undertaken :—

TONSILS.

Number of cases notified,	470
" " remedied by medical treatment, ...	172
" " remedied by surgical treatment, ...	80

ADENOIDS.

Number of cases notified,	210
" " remedied,	87

GLANDS.

Number of cases notified,	75
" " remedied,	43

CONTAGIOUS SKIN DISEASES.—The three principal varieties of contagious skin disease met with amongst the school children were impetigo, ringworm, and scabies. In every case where ringworm or scabies was met with, the child was forthwith excluded from school in order to have proper treatment instituted. In those cases of impetigo where there was only a very small patch the parents were notified of the condition, and if the disease was treated at once there was no necessity for the child being excluded from school. Where, however, the disease was wide-spread and was associated with filth the pupil was excluded at once from school.

As regards ringworm, the common variety which affects the body was usually promptly dealt with, but when ringworm of the scalp was present the treatment was often delayed for a long time, or else it was spasmodic and ineffectual. The best results in ringworm of the scalp are undoubtedly obtained from x-ray treatment, and if this method of treatment is carefully carried out the cure is certain, speedy, and free from danger.

The following tables show the number of cases of skin disease notified, and the number which received treatment :—

IMPETIGO.

Number of cases notified,	...	...	...	92
„ „ cured,	...	...	...	*77

RINGWORM.

Number of cases notified,	...	...	...	64
„ „ cured or under treatment,	...	...	...	*44

SCABIES.

Number of cases notified,	...	...	...	50
„ „ cured or under treatment,	...	...	...	*37

TUBERCULOSIS.—Tubercular infections, whether of lungs, glands, or bones, have always to be viewed with great concern, as the future prospects of the individual affected are often seriously prejudiced, and it may be that even life itself is threatened. Consequently when a school child is found to suffer from any variety whatsoever of tubercular disease the School Medical Officer takes a serious view of the condition no matter how slight the infection may be. Especially is this the case when the lungs are infected with tubercle, because here it is the life of the child that is in danger, and there is also a grave risk

*No definite information was received in several cases of impetigo, scabies, and ringworm.

of spreading the disease to others. In all cases of pulmonary tuberculosis the child is excluded from school for a period of at least six months, and the parents are warned to have the child placed under medical care at once. The condition is also notified to the Medical Officer of Health of the district, so that steps may be taken to have disinfection carried out and, if possible, the patient isolated. Under the Public Health (pulmonary tuberculosis) Regulations (Scotland), 1912, all cases of pulmonary tuberculosis are now compulsorily notifiable. It is hoped that in the immediate future all cases of phthisis pulmonalis will receive suitable treatment either at home or in an institution. Although the School Medical Officers have since the inauguration of medical inspection rigidly excluded all cases of phthisis from the schools in this area, there was no guarantee that the pupils so excluded were receiving proper treatment, and although the exclusion of the child was a protective measure as regards the other pupils it may have been of little use for the actual sufferer. For example, this year there were six cases of pulmonary tuberculosis excluded from school, but only in two of these was there definite information that proper treatment was being undertaken. The establishing of sanatoria in different districts should help this condition, and it is hoped that in future no child will be allowed to remain untreated. This treatment should not be confined only to actual cases of phthisis pulmonalis, but should be given in all cases where there is tubercular disease. The benefit of fresh air, good food, healthy surroundings, and regular hours of sleep and recreation cannot be over-estimated, and it is essential that the scheme for the prevention and cure of consumption should be sufficiently comprehensive to embrace practically every variety of tubercular disease.

The following table shows the number of cases notified, and the number who have had, or still are undergoing, treatment :—

PULMONARY TUBERCULOSIS.

Number of cases notified,	8
„ „ receiving treatment,	2

OSSEOUS TUBERCULOSIS.

Number of cases notified,	7
„ „ which received treatment,	6

GLANDULAR TUBERCULOSIS.

Number of cases notified,	19
„ „ which received treatment,	10

OTHER CONDITIONS.—The following table will give some idea of the improvement which has taken place in the children who suffer from the other conditions stated in table B, and whose parents were notified of the need of treatment :—

		Number Notified.	Number Improved or Cured.
Clothing and Footgear,	...	409	165
Nutrition,	... ..	80	33
External Eye Disease,	...	397	249
Squint,	... ..	127	22
Ear Disease,	...	336	218
Wax,	... ..	161	76
Hearing,	... ..	160	83
Speech,	... ..	2	1
Heart and Circulation,	...	37	13
Lungs,	... ..	83	58
Epilepsy,	... ..	1	1
Chorea,	... ..	5	5
Rickets,	... ..	1	—
Deformities,	... ..	4	—
Infectious Disease,	... ..	10	10
Dirty Body,	... ..	156	220
Other Disease or Defects,	...	254	

PART V.

SPECIAL EXAMINATIONS.

I.—Examination of Junior Students (Entrants).—This year four School Boards made application to have the medical examination of their Junior Students (entrants) undertaken by the School Medical Officers, and a total of 66 Junior Students were examined. The following shows the numbers examined at each of the four centres :—

				Entrants Examined.
Hamilton,	...	...	...	44
Dalziel,	...	...	...	10
Lanark,	...	...	...	10
Biggar,	...	...	...	2
Total,				66

In addition to the above the Junior Students (1st, 2nd, and 3rd year) attending Lenzie Academy were examined by the School Medical Officers, and in future it is proposed that all Junior Students should be subjected to medical examination each year during their course of training. In Lenzie Academy 10 such students were examined this year.

II.—Examination of Physically and Mentally Defective Children.—In the early part of this year a request was made by the School Board of Rutherglen for an examination of the physically and mentally defective children in their area. It was ascertained by the School Board census that there were many children who, owing to physical or mental defect, were not in attendance at the ordinary schools, and for whom no special provision was being made at home. Of course it must not be thought that all those children who were said to be unfit for ordinary school attendance were really unfit, for it is a well-known fact that a parent's estimate of what constitutes unfitness for school is often opposed to that of the School Board or of the School Medical Officers. The purpose of the special examination, therefore, is not only to ascertain what are the needs for special classes for defective children, but also to find which children are being kept off school for an indefinite period when there is really no need for such action.

Following the course adopted last year the list of supposed defective children was drawn up and the children were classified according to the district in which they lived. Two examining centres were decided upon—in each case a school—and arrangements were made to have the defective children in attendance at the nearest examining centre on a certain day and at a fixed hour. Each child had to be accompanied by a parent or guardian, and in the case of those children who were unable to walk to the centre a conveyance was provided by the School Board. The time occupied in the examination of each child varied from twenty minutes to half an hour. On the completion of the examination a summary of results was drawn up and submitted to the School Board. This summary was divided into the following sections :—

- 1.—Children considered fit to attend an ordinary elementary school.
- 2.—Children considered fit to attend special classes for defectives—(a) physically defective ; (b) mentally defective.
- 3.—Children who were unfit for any school attendance—(a) physically defective ; (b) mentally defective.
- 4.—Children who were temporarily unfit for school attendance.

A full and detailed report on each child examined is kept at the Medical Inspection Offices for future reference if necessary, but only the summary of the results of the examination is submitted to the School Board with any recommendations considered necessary, such as the providing of conveyances for

children to and from school, the supplying of special chairs or couches in certain cases, the exemption from physical drill, exercises, etc.

In addition to the special examination conducted in Rutherglen School Board Area, examinations were made from time to time in connection with the admission of defective pupils to the special classes at Knowetop Public School. A full report was made on the physical and mental condition of each child before being admitted to these classes, the report being kept at the Medical Inspection Offices for future reference.

RESULTS OF EXAMINATION OF DEFECTIVES.

NAME OF BOARD.	No. Examined.	Fit to attend Ordinary School.	Fit to attend Special Class.		Unfit for School Attendance.		Temporarily Unfit for School Attendance.
			Physically.	Mentally.	Physically.	Mentally.	
Rutherglen,	53	23	8	1	12	1	8
Dalziel, -	16	1	7	6	2	—	—
	69	24	15	7	14	1	8

From the above table it will be seen that 69 children were presented for examination who were supposed to be physically or mentally unfit for education in an ordinary elementary school.

In Rutherglen School Board Area no fewer than 23 out of 53 presented were found to have no physical or mental defect which would preclude them from attending an ordinary school. That is, 43.5 per cent. of those children who were being kept off school for indefinite periods were quite fit to be in daily attendance at school.

CHILDREN FIT TO ATTEND SPECIAL CLASSES.

A.—Physically Defective.

Those children considered fit to attend special classes for the physically defective numbered 15. Tubercular bone disease was the commonest defect met with in this group. Although the disease was quiescent, there were resulting deformities which prevented the child from taking full advantage of the education provided in an ordinary elementary school. The physical defects present in this group of children were as follows :—

Tubercular Bone Disease,	...	...	...	4
Epilepsy,	...	...	...	2
Deaf-Mutism,	...	...	...	2
Rickets,	...	...	...	1
Congenital Heart Disease,	...	...	...	1
General Debility,	...	...	...	1
Incontinence of urine and faeces,	...	...	...	1
Infantile Paralysis,	...	...	...	1
Muscular weakness,	...	...	...	1
Amputation of both legs,	...	...	...	1

15

In practically all of the above cases it was considered advisable to recommend conveyance of the pupils to and from the special classes. In one of the cases of deaf-mutism the child was being educated at a special school in Glasgow, and as his progress was good it was decided that he should remain there meantime.

B.—Mentally Defective.

There were 7 children considered able to benefit by instruction at special classes for the mentally defective. A mentally defective child is defined by the Education of Defective Children (Scotland) Act, 1906, as "one who, not being imbecile, and not merely dull or backward, is, by reason of mental defect, incapable of receiving proper benefit from the instruction in the ordinary schools." All of the cases recommended for instruction in special classes belonged to the "Amentia" type of mentally defectives. This grade of mental defect is the highest and offers the best prospects from an educational standpoint. The other grades—Imbecility and Idiocy—are suitable only for institutional treatment. Of the 7 cases of Amentia, 6 of them were classified as high-grade Aments and 1 as a low-grade Ament. In all cases it was considered advisable to recommend conveyance to and from school.

CHILDREN EXEMPTED FROM ALL SCHOOL ATTENDANCE.

A.—Physically Unfit.

There were 14 children whose physical defect was so pronounced and where the disease was still active and progressive, that exemption from all school attendance for an indefinite period was recommended. In more than half of the cases the

disease was of a tuberculous nature, involving either the lungs, glands, or bones. The various conditions are shown in the following list :—

Pulmonary tuberculosis,	...	...	...	3
Glandular and Osseous,	...	...	...	4
Tubercular Eye disease,	...	...	...	1
Eye Disease (Cataract, Keratitis, Ulcerations, &c.),				5
Extreme debility,	...	...	...	1
				<hr/> 14

It is possible that certain of the above children may in time recover sufficiently to be able to attend special classes, but as no time could be specified for the period of recovery, they were exempted indefinitely from all attendance at school.

B.—Mentally Unfit.

Only one child was regarded as mentally unfit for attendance even at a special class. This child was an idiot, and was a fit subject for asylum treatment.

CHILDREN TEMPORARILY UNFIT FOR SCHOOL ATTENDANCE.

There were 8 children who were considered temporarily unfit for school attendance and for whom exemption was recommended for periods varying from three to six months. In two cases the children were suffering from the effects of an acute illness (scarlet fever and measles), and whose period of convalescence was protracted. In one case a commencing phthisis was suspected and the child was exempted for a period of six months. In another case a girl was undergoing treatment for extensive scarring due to burning, while eye disease was responsible for two other cases. Of the remaining two cases, one suffered from myxoedema and the other from rickets.

III.—Examination of Neglected Children.—A special examination of neglected children was undertaken at the request of Larkhall School Board. In all 101 children were examined with a view to ascertain what could be done by way of improving their condition. To some extent the value of the examination was lessened owing to the coal miners' strike, which was then in progress. The following were the points which were noted in regard to the children's condition.

Clothing, foot-gear, cleanliness, nutrition, and general appearance, and a report was sent of each case to the School Board. During the subsequent revisits to the schools all these cases were again seen and their condition noted.

W. JONES MACKINNON.
JOHN MACINTYRE.



COUNTY COUNCIL OF THE COUNTY OF LANARK
EDUCATION COMMITTEE

Medical Inspection and Treatment of School Children

Executive School Medical Officer—
JOHN MACINTYRE M.B. D.P.H.

All communications to be addressed—
THE EXECUTIVE SCHOOL MEDICAL OFFICER.

TELEPHONE No. 231

SCHOOL MEDICAL INSPECTION OFFICES,

3 CLYDESDALE STREET,

HAMILTON, 13th April, 1932.

Dear Sir,

With reference to your letter of the 5th April,

I have pleasure in sending you to-day per parcel post a

Yours faithfully,

John Macdonald

Executive School Medical Officer.

The Librarian,
Royal College of Surgeons of England,
Lincoln Inn Fields,
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